

Federal Communications Commission

FCC 03-8

Before the
Federal Communications Commission
Washington, D.C. 20554

In the Matter of)	
)	
)	
Second Periodic Review of the)	M B Docket No. 03-15
Commission's Rules and Policies)	
Affecting the Conversion)	RM 9832
To Digital Television)	
)	
Public Interest Obligations of TV)	MM Docket No. 99-360
Broadcast Licensees)	
)	
Children's Television Obligations of)	MM Docket No. 00-167
Digital Television Broadcasters)	
)	
Standardized and Enhanced Disclosure)	MM Docket No. 00-168 ✓
Requirements for Television Broadcast Licensee)	
Public Interest Obligations)	

NOTICE OF PROPOSED RULE MAKING

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By the Commission: Commissioners Copps and Adelstein issuing separate statements

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I. INTRODUCTION

1. With this *Notice of Proposed Rule Making*, we commence our second periodic review of the progress of the conversion of the nation's television broadcast system from analog technology to digital television ("DTV"). In the Commission's DTV proceeding (MM Docket No. 87-268), we stated our intention to hold periodic reviews of the progress of the digital conversion and to make any adjustments necessary to our rules and policies to "ensure that the introduction of digital television and the recovery of spectrum at the end of the transition fully serves the public interest."¹ In our first DTV periodic review, begun in March 2000, we addressed a number of issues important to the transition.² In this second periodic review, we revisit, as we indicated we would, several issues addressed in the first periodic review, and also seek comment on a number of additional issues that we consider essential to resolve in order to ensure continued progress on the digital transition.

¹ *Fifth Report and Order* in MM Docket No. 87-268, 12 FCC Rcd 12809, 12856(1997) ("Fifth Report and Order"), on recon., *Memorandum Opinion and Order on Reconsideration of the Fifth Report and Order*, 13 FCC Rcd 6860, on further recon., *Second Memorandum Opinion and Order on Reconsideration of the Fifth and Sixth Report and Orders*, 14 FCC Rcd 1348 (1998), recon. dismissed, DA 99-1361 (rel. July 12, 1999), recon. dismissed, FCC 00-59 (rel. Feb. 23, 2000).

² *In the Matter of Review of the Commission's Rules and Policies Affecting the Conversion to Digital Television*, 16 FCC Rcd 5946 (2001) ("First DTV Periodic Review Report and Order"), on recon., *Memorandum Opinion and Order on Reconsideration*, 16 FCC Rcd 20594 (2001) ("First DTV Periodic Review MO&O"), *Second Report and Order and Second Memorandum Opinion and Order*, 17 FCC Rcd 15978 (2002) ("First DTV Periodic Review Second Report and Order") (addressing DTV receiver standards and labeling requirements), *Third Memorandum Opinion and Order on Reconsideration*, 17 FCC Rcd 18571 (2002) (denying a Petition for Reconsideration of the determination in the MO&O that DTV area expansion applications must protect certain earlier-tilted NTSC applications).

II. BACKGROUND

2. In January 2001, we released the *First DTV Periodic Review R&O* in which we made a number of determinations to further the transition. Among other things, we established a December 31, 2003, deadline by which commercial television stations that have both their NTSC and DTV operations on in-core channels must elect which of their two core channels to use for DTV operations after the transition.³ We gave non-commercial stations that have both their NTSC and DTV operations on in-core channels until the end of 2004 to elect their post-transition DTV channel. In addition, to provide broadcasters with an incentive to provide full replication of NTSC coverage with DTV service, we determined that, after December 31, 2004, any portion of a commercial broadcaster's NTSC Grade B contour that is not replicated by its digital television signal will not be protected in the DTV Table of Allotments. Noncommercial DTV licensees were given until December 31, 2005, in which to replicate or lose such DTV interference protection. We also imposed a principal community coverage requirement that is stronger than the DTV service contour requirement adopted as an initial obligation in the *Fifth Report and Order*. This new principal community coverage requirement, which becomes effective December 31, 2004, for commercial stations and December 31, 2005, for noncommercial stations, was intended to improve the availability of service in the community of license and to prevent undue migration of stations from their communities of license.

3. In the *First DTV Periodic Review MO&O*, we revised a number of the determinations made in the *Report and Order*. We noted that the results of a survey of all full-power commercial TV stations, conducted by National Association of Broadcasters ("NAB") in August 2001, indicated that nearly one-third of all stations responding to the survey anticipated that they would not be able to provide a digital signal by the May 2002 digital television construction deadline. Some smaller market broadcasters asserted that they were unable to obtain financing to construct DTV facilities sufficient to replicate their analog service area, and that they would not have sufficient operational experience by December 2004 to determine which core channel is superior for DTV transmission. In light of this, we concluded that the channel election and replication protection deadlines established in the *First DTV Periodic Review Report and Order* may have had the unintended consequence of hindering, rather than furthering, the DTV transition. We noted that broadcasters that were not capable of constructing full replication facilities by the interference protection deadline established in the *Report and Order* may have been postponing construction altogether, thus slowing transition progress.

4. To address these concerns, we decided in the *First DTV Periodic Review MO&O* to allow stations to construct initial DTV facilities designed to serve at least their communities of license, while still retaining for the time being DTV interference protection to provide full replication at a later date. We also determined that we would continue to provide DTV interference protection to the maximized service area specified in outstanding DTV construction permits for facilities in excess of those specified in the DTV

³ In the DTV *Sixth Memorandum Opinion and Order*, we determined that after the transition DTV service would be limited to a "core spectrum" consisting of current television channels 2 through 51. *Memorandum Opinion and Order on Reconsideration of the Sixth Report and Order*, 13 FCC Rcd 1418 (1998). In order to reclaim and re-license the spectrum outside the core (TV channels 52 through 69) in accordance with statutory mandate, the Commission will relocate television operations in this spectrum to the core spectrum, and has reallocated the 698-806 MHz band to other services. See *Reallocation of Television Channels 60-69, the 746-806 MHz Band*, 12 FCC Rcd 22953 (1998); *In the Matter of Reallocation and Service Rules for the 698-746 MHz Spectrum Band (Television Channels 52-59)*, 17 FCC Rcd 1022 (2002).

Table of Allotments.’ We temporarily deferred the replication protection and channel election deadlines established in the *First DTV Periodic Review Report and Order*. We stated, however, that in the next DTV periodic review we would establish a firm date by which broadcasters must either replicate their NTSC service areas or lose DTV service protection of the unreplicated areas, and by which broadcasters with authorizations for maximized digital facilities must either provide service to the coverage area specified in their maximization authorizations or lose DTV service protection to the uncovered portions of those areas. We also stated that we would establish a deadline by which broadcasters with two in-core allotments must elect which channel they will use at the end of the transition. We stated that these replication, maximization, and channel election deadlines may be earlier than, but will in no event be later than, the latest of either the end of 2006 or the date by which 85% of the television households in a licensee’s market are capable of receiving the signals of digital broadcast stations.’

5. We indicated in the *First DTV Periodic Review*’ MO&O that the revisions we made to our rules and policies would prioritize those elements most important to further progress in the DTV transition. We stated that our primary goal should be to expand the number of DTV stations on the air and to provide service to consumers who live in heavily-populated areas – *i.e.*, within the community of license. By temporarily deferring our channel election, replication, and maximization requirements, we allowed stations to go on the air with lower-powered, and therefore less expensive facilities, and provided broadcasters additional time to gain experience with digital operation before being required to select their post-transition channel. The reduced build-out requirements adopted in the *First DTV Periodic Review* MO&O allowed broadcasters to save both on construction and operating costs, including lower power expenses. In addition, we allowed DTV stations subject to the May 1, 2002, or May 1, 2003, construction deadlines to operate initially at a reduced schedule by providing, at a minimum, a digital signal during prime time hours, consistent with their simulcast obligations.⁶

6. By permitting stations to elect a more graduated approach to providing DTV service, we allowed stations to focus their energies initially on providing digital service to their core communities, while allowing stations to increase operating hours and expand their coverage area as the transition progresses. Once broadcast stations have commenced at least the minimum permissible level of service to their communities, DTV set penetration levels should increase and marketplace forces should work to speed the transition and provide an incentive to broadcasters to provide service to outlying areas. We

⁴ Television broadcast licensees may seek to expand or shift (also referred to as “maximize”) their DTV allotments by filing applications to increase power or change the site or height of their antenna in such a way that it increases their DTV service area in one or more directions beyond the area resulting from the station’s DTV allotment parameters.

⁵ We did not alter our decision to require stations to provide a stronger signal to their communities of license than that adopted as an initial requirement in the *Fifth Report and Order*. This principal community coverage requirement will become effective December 31, 2004, for commercial stations and December 31, 2005, for noncommercial stations.

⁶ See 47 C.F.R. § 73.624(b). Commencing April 1, 2003, DTV licensees and permittees are required to simulcast 50% of the video programming of the analog channel on the DTV channel. This requirement steps up to a 75% simulcast requirement in April 2004, and a 100% requirement in April 2005. 47 C.F.R. § 73.624(f). To the extent a station’s simulcast obligations exceed the minimum digital video programming requirement in Section 73.624 of our rules, the simulcast obligation governs. Stations that were subject to the earlier construction deadlines (top four network affiliates in the top thirty markets) remained subject to the previous rule – *i.e.*, they must operate their DTV station at any time that the analog station is operating.

stated in the *First DTV Periodic Review MO&O* our expectation that, for many broadcasters, the financial obstacles they face in completing construction of their digital facilities by the applicable construction deadline would be alleviated by the reduced build-out requirements established in the item. For broadcasters unable to complete even the minimum permitted facilities by the applicable deadline, however, we revised our rules to permit applicants to seek an extension of time to construct a digital television station where the applicant can demonstrate financial hardship.⁷

111. PROGRESS REPORT

7. Pursuant to the construction schedule set forth in the *DTV Fifth Report and Order* and in Section 73.624(d) of the Commission's rules, affiliates of the top four networks in the top ten television markets were required to complete construction of their digital facilities by May 1, 1999; top four network affiliates in markets 11-30 by November 1, 1999; all remaining commercial television stations by May 1, 2002; and all noncommercial television stations by May 1, 2003.⁸

8. As of January 7, 2003, a total of 1,567 television stations in all markets (representing approximately 93% of all stations) have been granted a DTV construction permit or license.⁹ There are a total of 807 stations now on the air broadcasting a digital signal, 359 with licensed facilities or program test authority and 448 operating pursuant to special temporary authority ("STA") or experimental DTV authority. Most Americans now have available to them an over-the-air signal from at least one digital television station, and many Americans have several DTV signals available to them.

9. In the top thirty television markets, 113 of the 119 network-affiliated television stations are on the air in digital, 105 with licensed DTV facilities or program test authority and 8 with STAs. In markets 1-10, of the 40 network affiliates due to be on the air by May 1, 1999, 38 are on the air with a digital signal. The remaining two were licensed and on the air prior to September 11, 2001, but are now off the air due to the attack on the World Trade Center.¹⁰ One top ten market network affiliate is operating pursuant to an STA and has been granted additional time to construct its DTV facilities.¹¹ In markets 11-30, 68 of 79 network affiliate stations required to be on the air by November 1, 1999, have constructed

⁷ To qualify for an extension of time to construct a digital television facility under the financial hardship standard, the applicant must demonstrate that the cost of meeting the minimum build-out requirements exceeds the station's financial resources. The applicant must provide an itemized estimate of the costs of construction and a detailed explanation of why its financial condition precludes such an expenditure.

⁸ *Fifth Report and Order*, 12 FCC Rcd 12809, 12840-41, ¶ 76; 47 C.F.R. § 73.624(d).

⁹ The remaining 7% of stations have applications on file with the Commission that are awaiting Mexican, Canadian, or other clearances; are mutually exclusive; or have rulemaking proceedings pending with the Commission.

¹⁰ Two network-affiliated television stations in New York City (WABC-DT and WNBC-DT), as well as three other DTV stations (WWOR-DT, WPIX-DT, and WNET-DT) in that market were taken off the air as a result of the September 11, 2001, attack and have not yet rebuilt their DTV facilities. Except for WWOR-DT, these stations are not broadcasting a digital signal. WWOR-DT is broadcasting in digital from an antenna shared with WNYW-DT on the Empire State Building.

¹¹ The Commission has granted WBBM-DT, Chicago, Illinois an extension of time to complete construction of their digital facilities. *In re Requests for Extension of the October 5, 2001, Digital Television Construction Deadline*, MM Docket No. 02-113, FCC 02-150, ¶ 21 (rel. May 24, 2002) ("DTV Extension Order and NPRM"). WBBM-DT currently is airing a digital signal pursuant to an STA from a temporary antenna as part of its effort to resolve interference caused by its DTV station to local cable television service.

their licensed DTV facilities. Seventy-five of these stations now are on the air. Seven stations have been granted additional time to complete construction of their digital facilities."

10. Approximately 1,196 commercial television stations were due to commence digital broadcasts by May 1, 2002. As of January 7, 2003, 610 of these stations are broadcasting a digital signal. In addition, 84 noncommercial educational television stations are voluntarily airing digital broadcasts ahead of schedule. The remaining 289 noncommercial educational television stations are scheduled to commence digital operations by May 1, 2003.

11. A total of 843 commercial television stations subject to the May 1, 2002, deadline requested an initial extension of time to complete construction. The Media Bureau granted 772 of these initial extension requests upon showings that the delay in completing construction was due to Financial hardship or to circumstances that were either unforeseeable or beyond the permittee's control. The DTV construction permits for these stations were extended for a six-month period, until November 1, 2002. As of January 7, 2003, 602 of these stations have requested an additional extension of time to construct, and 267 of these requests have been granted. The remainder of these extension requests have either been dismissed or remain pending. Most stations state that DTV service will be operational during the next six month extension period.

12. Seventy-one stations that requested an extension of the May 1, 2002 construction deadline were found not to have taken all reasonable steps to complete construction of their DTV facilities in an expeditious manner. Accordingly, the Media Bureau denied these extension applications by letter rulings and admonished each permittee for its failure to comply with its DTV construction obligations. Each permittee was given until December 1, 2002 to come into compliance with the DTV construction rule and was directed to submit, within 30 days, an initial report outlining the steps it intended to take to complete construction. These permittees also were required to file a subsequent progress report with the Commission." As of January 7, 2003, 54 of these stations have commenced DTV operation.

13. In the *DTV Extension Order and NPRM*, we sought comment on a proposed set of graduated sanctions for television licensees that fail to meet the applicable DTV construction deadlines." The proposed sanctions range from admonishment and additional reporting obligations, to Fines, to removal of the station's DTV authorization. The Commission tentatively concluded that a licensee whose DTV authorization is rescinded will not be permitted to convert to digital on its analog allotment without being subject to competing applications.

¹² In the *DTV Extension Order and NPRM*, we granted the following stations in markets 11-30 additional time to complete construction of their DTV facilities: WVIT-DT, New Britain, Connecticut; WTIC-DT and WFSB-DT, Hartford, Connecticut; WTVJ-DT, Miami, Florida; and KUSA-DT, KMGH-DT, and KCNC-DT, Denver, Colorado. The Connecticut stations reposed delays in obtaining zoning approval and noted that ongoing FCC channel swap rulemakings affect their digital stations; WTVJ-DT in Miami also is involved in a pending rulemaking which would result in the change of its DTV allotment; the Denver stations report that they have been unable to complete construction of their DTV facilities on Lookout Mountain, outside of Denver, due to an ongoing unresolved local tower siting dispute.

¹³ See, e.g., Letter from W. Kenneth Ferree, Chief, Media Bureau to KSBI Licensee, L.P. (June 3, 2002), File No. BEPCDT-20020301AHU; Letter from W. Kenneth Ferree to Trinity Broadcasting Network, (June 3, 2002), File No. BEPCDT-20020304AGK. Copies of these letters are available at www.fcc.gov/mb/video/files/dendtvextreq.pdf.

¹⁴ *DTV Extension Order und NPRM*. MM Docket No. 02-113, ¶¶ 17-20

14. In addition to broadcast licensees, other market participants, including cable and satellite companies, cable and broadcast networks, and consumer equipment manufacturers and retailers, play a critical role in influencing the pace of the digital transition. During the past year the amount of broadcast and other HDTV service offered by MVPDs has increased. Several cable MSOs including Cox, Comcast, Time Warner, and Charter now offer broadcast stations in HDTV on cable systems in selected markets.¹⁵ Both major DBS providers also offer HDTV programming. DIRECTV offers HBO HD and Showtime HDTV to subscribers receiving premium channels and HDNet to all subscribers at no extra charge.¹⁶ EchoStar, on its Dish Network, offers the CBS east and west coast feeds in HD to qualified subscribers, HBO HD and Showtime East to premium channel subscribers, and Discovery HD Theater to subscribers for an additional fee.¹⁷

15. In April 2002, FCC Chairman Michael Powell urged several industries to take specific steps to move the DTV transition forward. Specifically, he called for the provision of more high definition television ("HDTV") or other "value-added DTV programming," more cable carriage of DTV channels, the provision of cable set-top boxes that allow for the display of HDTV programming, and the inclusion of over-the-air DTV tuners in almost all new television receivers by the end of 2006.¹⁸ Many of the industries have responded favorably to the Chairman's plan and have made tangible commitments to advance the transition.¹⁹ For example, NCTA has stated that cable operators have committed, by January 1, 2003, to offer to carry the signal of up to five digital commercial or public television stations (at no cost to cable operators or broadcasters) and/or cable networks that provide HDTV during at least 50% of their prime time schedule or a substantial portion of their broadcast week.²⁰

16. On August 8, 2002, we adopted a *Second Report and Order and Second Memorandum Opinion and Order* in the first DTV periodic review proceeding, which requires that all TV receivers manufactured in the U.S. with screen sizes greater than 13 inches and all TV receiving equipment, such as VCRs and DTV recorders, be capable of receiving DTV signals over-the-air no later than July 1, 2007.²¹ In addition, on August 8, 2002, we adopted a *Notice of Proposed Rule Making* to explore whether we could and should mandate use of the "broadcast-flag" copy-protection mechanism for DTV to protect

¹⁵ Comments of NCTA filed in MB Docket No. 02-145, Annual Assessment of the Status of Competition in the Market for the Delivery of Video Programming (NCTA Comments), at 33-35. This is in addition to HBO HD and Showtime HDTV. At least one MSO, Cox, offers Discovery Channel's new Discovery HD Theater as a premium offering.

¹⁶ <http://www.directv.com/DTVAPP/imagine/HDTV.jsp>.

¹⁷ <http://faq.dishnetwork.com/questions/106.asp?sc=%2F&cboSubCategory=50&cboCategory=10&txtSearch=&pg=1>. EchoStar also offers DISH-On-Demand Pay Per View in HDTV format as well as the HDTV Demo Channel.

¹⁸ See Letters from Chairman Michael K. Powell to Senator Ernest F. Hollings and Representative W. J. "Billy" Tauzin, (Apr. 4, 2002), at www.fcc.gov/dtv.

¹⁹ See July 11, 2002 Statement by Chairman Michael K. Powell, available at www.fcc.gov/dtv. Copies of letters from participating industries, detailing the initiatives they plan to take in response to the Chairman's plan, are available at www.fcc.gov/dtv/industryletters.pdf.

²⁰ Letter from Robert Sachs, President NCTA, to Chairman Michael K. Powell (May 1, 2002). See also, NCTA Comments. This commitment includes the ten largest cable operators including AT&T Broadband, AOL-Time Warner, Comcast, Charter, Cox, Adelphia, Cablevision, Mediacom, Insight and CableOne.

²¹ *First DTV Periodic Review Second Report and Order*, FCC 02-230, ¶ 40. Larger sets have earlier deadlines

digital broadcast content from unauthorized copying and redistribution.”

17. Finally, in a *Further Notice of Proposed Rule Making*,²² released January 10, 2003, the Commission sought comment on proposed rules for “plug and play” cable compatibility that will allow consumers to plug their cable directly into their digital TV set without the need for a set-top box. The *FNPRM* seeks comment on a Memorandum of Understanding (“MOU”) filed with the Commission by the cable and consumer electronics industries detailing an agreement on a cable compatibility standard for an integrated, one-way digital cable television receiver, as well as other unidirectional digital cable products.²⁴

JV. ISSUE ANALYSIS

A. Transition Progress in Specific Areas

18. Our goal in this proceeding is to address impediments that must be resolved to ensure a complete and rapid transition to digital television. To that end, we invite commenters to provide us with information about problems that may be slowing transition progress. What factors currently present the greatest obstacles to the transition? What steps should the Commission take to address these obstacles?

19. With respect to the progress of the digital buildout, we invite comment on the extent to which broadcasters continue to face difficulties in building their DTV stations. To what extent are unresolved zoning or tower siting issues continuing to delay the digital buildout? Are stations continuing to face difficulties in obtaining construction financing? To what extent is our decision to allow stations to commence digital operations with minimum digital facilities and reduced operating hours alleviating financial obstacles to construction? What other obstacles are broadcasters facing?

20. We also invite comment on the progress made by cable and satellite operators in constructing facilities and deploying the equipment necessary to carry digital television programming, including HDTV. To what extent are cable operators and satellite carriers currently carrying, or planning to carry, digital television broadcast signals? If these digital signals are in HDTV format, are they being passed through in HDTV, or are they being converted to another digital format, or to analog? To what extent are cable operators and satellite carriers providing HDTV programming from a source other than broadcast television? How many cable and satellite subscribers have the equipment necessary to receive such signals in digital format, including HDTV?

21. In addition, we seek information about the production and distribution of digital programming. What kind of programming is being produced to take advantage of the capabilities of DTV? To what extent are content distributors, including broadcast television licensees as well as cable and satellite operators, offering programming filmed in standard or high definition digital as opposed to programming that has been converted from analog to digital? We request information on the extent to which broadcasters are now using or planning to use digital channels for multichannel program offerings

²² *Notice of Proposed Rule Making*, MB Docket 02-230, FCC 02-231 (rel. Aug. 9, 2002).

²³ Commercial Availability of Navigation Devices and Compatibility Between Cable Systems and Consumer Electronics Equipment, *Further Notice of Proposed Rulemaking*, CS Docket No. 97-80 and PP Docket No. 00-67, FCC 03-3 (rel. Jan. 10, 2003).

²⁴ Receivers manufactured pursuant to the MOU would still need an external navigation device to receive certain advanced features, such as certain electronic programming guides and video on demand.

("multicasting") or for other services

22. We are also interested in information about the general availability of DTV consumer equipment. We invite commenters to provide us with up-to-date information about the pace of DTV receiver sales and the price of such units. Is consumer demand for digital equipment increasing? What efforts are being made to promote digital or high definition television, including on-air promotion? We also request information on the number of devices sold to consumers that can receive and display digital signals broadcast over the air. How many of these devices downconvert the digital signal to analog and how many receive and display the signal in high or standard definition digital? How many TV receivers can receive and display digital programming when *directly connected* to a cable system or satellite service, and how many require an additional set-top box? How many such devices sold to consumers are so-called "DTV ready" sets without over the air tuners?

23. Congress recently enacted legislation modifying the statutory deadlines for auction of spectrum previously allocated to television broadcasting.²⁵ As part of this legislation, Congress required that the Commission submit a report to Congress within one year describing, *inter alia*, progress made in the digital television transition.²⁶ We intend to use information collected in this proceeding in preparing this report. Consequently, in addition to the information described above, we invite commenters to provide us with any additional data or views regarding progress made in the DTV transition to be considered in this report.

B. Channel Election

24. In the *DTV Sixth Memorandum Opinion and Order*,²⁷ we determined that, after the transition, DTV service would be limited to a "core spectrum" consisting of current television channels 2 through 51 (54-698 MHz). Although some stations received transition channels out of the core: and a *few* have both their NTSC and DTV channels outside the core, we believe that there will be sufficient spectrum to accommodate all DTV stations within the core by the end of the transition. Having stations with two in-core channels decide which one of the channels would be most suitable for use in digital broadcasting will assist us in determining what channels will be available for stations with two out-of-core channels and in clearing the out-of-core spectrum.

25. In the *First DTV Periodic Review MO&O*, we temporarily deferred channel election deadlines until this next periodic review. Accordingly, we now request comment on the new channel election deadline. Our goal is to establish a deadline that gives broadcasters with two in-core channels enough time to make an informed decision about which of their two core channels would be most suitable

²⁵ See Auction Reform Act of 2002, Pub. L. No. 107-195 (2002). This legislation eliminated the existing statutory deadlines in 47 U.S.C. § 309(j)(14)(C) for the auction of most of the spectrum in the 700 MHz band, and established a new deadline of August 2002 for commencement of the auction of the Lower 700 MHz Band C and D block licenses. The initial auction for these spectrum blocks has been completed.

²⁶ *Id.*, Sec. 3 (to be codified at 47 U.S.C. § 309(j)(15)(C)(iv)). This report must also specify when the Commission intends to reschedule auctions 31 and 44 (other than the Lower 700 MHz Band C and D blocks for which the auction commenced August 27, 2002) and the progress made "in the assignment and allocation of additional spectrum for advanced mobile communications services that warrants the scheduling of such auctions." *Id.* As issues relating to the timing of auctions and the allocation of spectrum for advanced mobile communications services are beyond the scope of this proceeding, they will be addressed separately.

²⁷ *Memorandum Opinion and Order on Reconsideration of the Sixth Report and Order*, 13 FCC Rcd 1418 (1998)

to use for digital broadcasting. **We** continue to believe that stations that choose to begin service at lower power should be given an opportunity to increase power and to test for interference or other service problems at those higher power levels before they are required to decide which of their two channels is preferable for DTV operations. **At** the same time, we recognize that stations with two out-of-core assignments must have time to plan their moves to in-core channels before the end of the transition. To accommodate these concerns, we propose that commercial and noncommercial broadcast licensees with two in-core assigned channels make their final channel election by May 1, 2005. This date provides three years for commercial broadcasters and two years for noncommercial broadcasters after the applicable digital construction deadline to make the channel election. **A** May 1, 2005, channel election deadline also provides licensees that will have to move into the core time to plan for their move before December 31, 2006. We seek comment on this proposal.

26. **As** an alternative, we seek comment on whether establishing the same deadline(s) for channel election as for replication and maximization protection, as discussed below, would be more effective in speeding the transition. **As** our proposed replication and maximization protection deadlines are later than **May 1, 2005**, aligning the channel election deadline with these deadlines would give broadcasters more time to increase to full power before they determine which channel is preferable for digital broadcasting. Better operating data may be available when broadcasters are operating at or close to their full operating power near the replication and maximization protection deadlines. We seek comment on whether we should align the channel election deadline(s) with the replication and maximization protection deadlines we establish herein and, if so, what the deadline(s) should be.²⁸

27. As we stated in the *First DTV Periodic Review Report and Order*, in all cases, including stations with both channels in-core, we reserve the right to select the final channel of operation in order to minimize interference and maximize the efficiency of broadcast allotments in the public interest.²⁹ We intend to review the channel elected to ensure that its use furthers these goals.

DTV/Analog In-Core Channel Swaps

28. Some stations with two in-core channels have already determined that they prefer to use their current analog NTSC channel for DTV operations and want to commence digital operations on the new channel before the end of the transition. Currently a station with in-core DTV and NTSC channels can swap those channels only through a dual rulemaking proceeding to change both the DTV and NTSC Tables of Allotments. As the DTV transition proceeds, it is possible that many stations will want to explore this swap option. Accordingly, we seek comment on whether we should allow such channel swaps through an application process.” We propose to require that parties meet the spacing requirements for amending the analog Table of Allotments pursuant to 47 C.F.R. § 73.610 and to allow parties to use Longley-Rice analysis to demonstrate that an analog TV station protects DTV stations and for amending the DTV Table of Allotments pursuant to 47 C.F.R. § 73.623. We invite comment on these proposals and on how the Commission should address any loss of analog service or cable carriage or other public interest issues that may arise in connection with analog/DTV channel swap proposals.

²⁸ We discuss replication and maximization interference protection for in-core channels in section **IV(C)**, *infra*.

²⁹ *First DTV Periodic Review Report and Order*, 16 FCC Rcd at 5953, ¶16.

³⁰ Currently, two or more **DTV** licensees/permittees are allowed to request a swap of their **DTV** channel allotments by filing modification applications for each station.

C. Replication and Maximization for In-Core Channels

29. In the *First DTV Periodic Review MO&O* we stated that we would establish in this second DTV periodic review a date by which broadcasters must either replicate their NTSC service areas or lose DTV service protection to the unreplicated areas, and by which broadcasters with authorizations for maximized digital facilities must either provide service to the associated coverage area or lose DTV service protection to the uncovered portions of those areas. We stated that these replication and maximization protection deadlines may be earlier than, but will in no event be later than, the latest of either the end of 2006 or the date by which 85% of the television households in a licensee's market are capable of receiving the signals of digital broadcast stations." We now seek comment on establishing new dates for maintaining interference protection for the unserved portions of both the replication and maximization service areas of DTV stations on channels 2-51.³²

30. Each DTV channel allotment was chosen to allow its DTV service to best match the Grade B service contour of the NTSC station with which it was paired." We took this approach to "ensure that broadcasters have the ability to reach the audiences that they now serve and that viewers have access to the stations that they can now receive over the air."³⁴ Although we have declined to make full signal replication mandatory," we continue to believe that most DTV broadcasters eventually will replicate their NTSC service areas with DTV service. Our goal in temporarily deferring the replication protection deadline established in the *First DTV Periodic Review Report and Order* was to permit stations to elect a more gradual build out of their DTV facilities, and thereby increase the number of stations capable of commencing digital service to at least their core communities by the May 2002 and May 2003 construction deadlines. Once stations commence at least the minimum level of digital service, we believe that DTV set penetration levels will increase, thereby driving demand for digital programming and providing broadcasters with an incentive to expand digital service.

31. We have also emphasized DTV service maximization in the digital transition as a means by which stations may increase their DTV signal coverage and provide DTV service competitively within their respective markets.³⁶ Maximization is particularly important for UHF stations. Most analog VHF stations were allocated UHF digital facilities with power levels generally sufficient to permit replication of the station's analog VHF coverage. Analog UHF stations were allocated significantly less power for their UHF digital facilities. These lower power levels were selected to permit replication of the analog coverage area of the UHF facilities, which is significantly smaller in most cases than the analog coverage area of VHF facilities. In the *First DTV Periodic Review MO&O*, we gave DTV licensees seeking to maximize facilities, including analog UHF licensees, the same flexibility to implement graduated construction plans

³¹ See *First DTV Periodic Review MO&O*, 16 FCC Rcd at 20598, ¶ 10.

³² We seek comment on replication and maximization interference protection deadlines for stations operating on TV channels 52-69 (698-806 MHz) in section (IV)(D), *infra*.

³³ *Sixth Report and Order*, 12 FCC Rcd 14588, 14605 (1997) ("*Sixth Report and Order*"), *on recon.*, *Memorandum Opinion and Order on Reconsideration of the Sixth Report and Order, supra*, *on further reconsideration*, *Second Memorandum Opinion and Order on Reconsideration of the Fifth and Sixth Reports and Orders*, 14 FCC Rcd 1348 (1998), *recon. dismissed*, DA 99-1361 (rel. July 12, 1999), *recon. dismissed* FCC 00-59, (rel. Feb. 23, 2000).

³⁴ *id.*

³⁵ See *First DTV Periodic Review Report and Order*, 16 FCC Rcd at 5955, ¶ 21

³⁶ *Sixth Report and Order*, 12 FCC Rcd at 14605, ¶ 30

as analog VHF licensees.”

32. Our goal in this second periodic review is to set replication and maximization deadlines that allow stations sufficient time to provide full replication and maximization service while also ensuring that stations continue to progress toward an all-digital broadcast service. We seek comment below on proposed new deadlines by which we would cease interference protection to the unserved areas within a station's DTV allotment or maximization authorization. We also seek comment on the disposition of construction permits or applications for replication or maximization pending at the time of the deadline.

33. For DTV channels within the core spectrum, we propose to set new replication and maximization protection dates close to the end of the transition: for the top-four network affiliates (*i.e.*, ABC, CBS, Fox and NBC) in markets 1-100 - July 1, 2005; and for all other commercial DTV licensees as well as noncommercial DTV licensees - July 1, 2006.

34. Establishing specific dates for lifting interference protection will ensure that broadcasters either use their replication or maximization facilities by that date or risk losing the unused portion of the associated area, thereby prompting broadcasters to expand their digital service area and speeding the transition. Setting firm deadlines will also help promote transition progress because other important participants in the transition, such as electronics manufacturers, content providers, advertisers, and MVPDs, will be able to anticipate a date by which most broadcasters will be operating at full power, and adjust their business plans accordingly. The deadlines we propose would give the largest commercial stations in the largest markets on in-core channels at least three years to acquire necessary financing, develop business plans, and expand their digital service areas. Smaller-market commercial stations, smaller commercial stations in larger markets, and noncommercial DTV licensees, which may face greater obstacles in moving towards full replication or service maximization, would have close to the maximum time under the current statutory transition period to complete their replication and maximization facilities. Establishing earlier interference protection deadlines for larger stations in larger markets is consistent with previous decisions to require larger stations in larger markets to lead the transition.³⁷ We seek comment generally on the appropriateness of these dates. We also invite commenters to propose alternative approaches for establishing interference protection deadlines, such as giving stations a certain amount of time (*e.g.*, 24 months) after the station commences digital service or after adoption of the Report and Order in this proceeding, whichever is later, to fully replicate or maximize, or establishing a replication/maximization deadline for each market based on when that market reaches a specified digital service penetration level.

35. If a station fails to construct and operate facilities that fully replicate its NTSC service area or provide signal coverage over an authorized maximized service area by the interference protection deadline(s) we will establish in this proceeding, we seek comment on how the Commission should dispose of any construction permits or applications for replication or maximization facilities at that time. Should

³⁷ Congress also has recognized the importance of preserving the right of DTV stations to maximize and has established specific measures to protect coverage areas defined in maximization applications. In the Community Broadcasters Protection Act of 1999, Congress protected applications for maximization against new Class A stations. To be entitled to protection by low power television stations applying for primary Class A status, DTV stations were required to have filed an application for maximization or a notice of intent to seek maximization by December 31, 1999, and to have filed a bona fide application for maximization by May 1, 2000. 47 U.S.C. § 336(f)(1)(D), (7)(A)(ii)(IV).

³⁸ *Fifth Report and Order*, 12 FCC Rcd at 12842, ¶ 78; 12844, ¶ 86.

applications for facilities in excess of those in actual operation by the station be dismissed? How should the Commission treat authorizations for facilities not being fully used by the station? For example, a station has a construction permit for facilities that would serve a larger area than facilities it is operating pursuant to Special Temporary Authority. Should such a construction permit be modified to specify the facilities in actual operation? In addition, we invite comment on how the Commission should treat the spectrum use opportunity that would be created after the interference protection deadline(s). Who should be permitted to file an application for this spectrum? Should any applications for this spectrum be subject to competing applications? Our inclination is to restrict any station that has failed to fully replicate or construct its authorized maximization facilities by the applicable deadline from filing an application to expand coverage for a certain period of time in order to allow other existing or new stations, including Class A eligible LPTV stations on out-of-core channels, to apply to use this spectrum. If we were to adopt this approach, how long should the restriction on the filing of expansion applications by stations that did not fully replicate or maximize by the deadline last? Any decision we reach in this proceeding regarding future licensing of this spectrum will be consistent with 47 U.S.C. § 309(j).

36. Finally, we seek comment on whether we should adopt an intermediate signal coverage requirement beyond a broadcaster's current obligation to cover its community of license and in addition to the ultimate "use-or-lose" deadline for full replication or maximization. In the *First DTV Periodic Review MO&O*, the Commission predicted that the "requirement that broadcasters serve their community of license will ensure that, for most stations, the majority of their analog service populations will receive initial digital service." We seek comment on whether this predictive judgment has been borne out in practice. For instance, we seek comment on whether some of the larger cities in which stations can operate under low-power STAs have large suburban populations that may not be served by a signal that only covers a station's community of license. If there are significant numbers of consumers not being served by stations operating under low-power STAs, we seek comment on what actions, if any, the Commission should take. Should the Commission establish a deadline by which time stations must provide DTV service within the entire area of their analog "city-grade" coverage contour⁴⁰ or their Grade A coverage? If so, when should such a requirement apply? Should such a requirement apply only to a subset of DTV stations (e.g., larger stations in larger markets that may have significant populations in areas adjacent to their communities of license, such as the top-four network affiliates in the top 100 markets)? In the alternative, will the 7dB increase in community of license coverage that must be met by December 31, 2004 for commercial stations and December 31, 2005 for noncommercial stations ensure that the majority of viewers are served without an additional coverage requirement? If the purpose is to ensure that viewers are served, should the date for the increased power requirement be advanced? Yet another alternative would be to require broadcast stations to deploy transmission equipment that is capable of being upgraded to serve broader coverage areas (e.g., their analog Grade "B" coverage), but permit the stations themselves to determine when any intermediate power increases occur prior to the full replication "use-or-lose" date. In general, our goal is to ensure that the maximum number of consumers is able to receive digital television as quickly as possible while providing broadcasters a realistic timetable for increasing to full power.

³⁹ *First DTV Periodic Review MO&O*, 16 FCC Rcd at 20607, ¶ 25.

⁴⁰ This contour encompasses the analog service area predicted to receive a field strength equal to or exceeding the analog principal community coverage requirement. See 47 C.F.R. § 73.685. In many cases, this contour extends significantly beyond the boundaries of the community of license.

Band-Clearing Arrangements

37. In the *First DTV Periodic Review MO&O*, we temporarily deferred the deadline for loss of interference protection for unserved areas for broadcasters involved in a band-clearing arrangement that are left with a DTV single-channel allotment.⁴¹ We stated that we will continue to protect throughout the course of the transition the analog TV service area of stations that do not have a paired DTV channel, either because they were not assigned a paired DTV channel or because they elect voluntarily to relinquish their paired DTV channel and convert to single channel analog operation as part of the 700 MHz band clearing, as long as the stations continue to operate in an analog mode.⁴²

38. We stated that our intention was to provide broadcasters involved in band-clearing with the same treatment as other broadcasters in terms of our DTV replication policy. We also said that, in our next periodic review, we would establish a new replication protection deadline for these broadcasters within the same timeframe as that established for replication and maximization for other broadcasters. We hereby seek comment on the timeframe needed and appropriate for broadcasters involved in band-clearing proposals to replicate their service area once commencing digital operation.

D. Interference Protection of Analog and Digital Television Service in TV Channels 51-69

39. We seek comment on whether we should adopt the same or different replication and maximization interference protection deadlines for stations operating on TV channels 52-69 (698-806 MHz, also referred to as the "700 MHz band") as for stations operating on core channels. In order to reclaim and relicense channels 52-69 in accordance with statutory mandate, the Commission is relocating television operations in this spectrum to the core spectrum (TV channels 2-51), and has reallocated the 698-806 MHz band to other services. The Auction Reform Act of 2002 directs the Commission to conduct auctions of the 700 MHz band before the expiration of the Commission's auction authority under 47 U.S.C. § 309(j)(11) (September 30, 2007). During the transition to digital broadcasting, incumbent broadcasters are permitted to continue to operate in the 698-806 MHz band. Licensees of new public safety, commercial wireless, and other services are permitted to operate in the band prior to the end of the transition, provided they do not interfere with incumbent analog and digital broadcasters.

⁴¹ *First DTV Periodic Review MO&O*, 16 FCC Rcd 20610, ¶ 33. In an earlier decision, the Commission concluded that a broadcaster that has been reduced to single-channel operation as a consequence of a band-clearing arrangement may continue to operate in analog until December 31, 2005, with a presumption that a deadline extension is warranted if the broadcaster demonstrates that 70% of the television households in its market are not capable of receiving digital broadcast signals. *Order on Reconsideration of the Third Report and Order*, 16 FCC Rcd. 21633, 21638-39 (2001). We intend to use the same evidentiary standards in assessing whether the 70% penetration target has been met as we determine will be used when making similar determinations under the statutory standard in 309(j)(14)(B). *Id.* n. 40. See *supra* section IV (H). The Commission concluded in the *Order on Reconsideration of the Third Report and Order* that such broadcasters retain the interference protection associated with their single-channel DTV allotment for a period of 31 months after beginning to transmit in digital. *Order on Reconsideration of the Third Report and Order*, 16 FCC Rcd. 21644-45. This 31 month period was equal to the period of interference protection for unreplicated areas that the Commission provided to all broadcasters in the *First DTV Periodic Review Report and Order*. *Id.*

⁴² *First DTV Periodic Review MO&O*, 16 FCC Rcd at 20606, ¶ 32. We stated that, generally, protection of these stations' analog TV operation within their authorized service areas will allow them to convert to digital operation providing DTV service to the same area.

40. To speed the clearing of the 698-806 MHz band for use by new services and to ensure continued progress in the digital transition, it may be appropriate to establish earlier replication and/or maximization protection deadline(s) for incumbent broadcasters in this spectrum than the deadline we establish for broadcasters operating on channels within the core. Accordingly, we invite comment on the extent to which the Commission should provide interference protection to the NTSC replication service area of DTV broadcasters in this band, and to the unserved areas specified in outstanding DTV maximization authorizations. We also invite comment on a number of other issues concerning the protection that must be provided to incumbent analog and digital broadcasters in the 698-806 MHz band during the transition.

1. Background

Upper 700 MHz Band (Channels 60-69)

41. In developing the initial DTV allotments, the Commission planned for the early recovery of channels 60-69 (746-806 MHz) in order to provide spectrum for use by other services, particularly public safety and land mobile services.” Given the relatively light use of this band for full service broadcasting and the proximity of existing land mobile communications systems to channels 60-69, the Commission concluded that equipment economies and enhanced interoperability between future public safety services and current systems operating in the 800 MHz band supported early recovery.⁴⁴ The DTV Table was developed to facilitate the early recovery of channels 60-69 (“Upper 700 MHz Band”) by minimizing the use of these channels for DTV purposes.” Subsequently, the Balanced Budget Act of 1997 was enacted, which mandated that the Commission reallocate channels 60-69 to new public safety and commercial services by January 1998.⁴⁶

42. Channels 60-69 were reallocated for wireless communications services in 1998.⁴⁷ As mandated by the 1997 Balanced Budget Act, the 24 megahertz of spectrum at 764-776 MHz and 794-806 MHz was allocated on a primary basis to the fixed and mobile services and designated for public safety use. Portions of channels 60, 62-64, and 67-69 are already licensed to guard band and public safety entities. The remaining 36 megahertz of spectrum was allocated on a primary basis to the fixed, mobile, and new broadcasting services for commercial use. Licenses in this 36 megahertz of spectrum will be assigned through competitive bidding.

43. In the *DTV Sixth Report and Order*,⁴⁸ we stated that all analog and DTV operations in the

⁴³ *Sixth Report and Order*, 12 FCC Rcd 14626, ¶ 79

⁴⁴ *Reallocation and Service Rules for the 698-747 MHz Spectrum Band (Television Channels 52-59)*, 16 FCC Rcd 7278, 7283 ¶ 6 (2001) (citing *Reallocation of Television Channels 60-69, the 746-806 MHz Band*, 12 FCC Rcd 14141, 14142 (1997) (“*Upper 700 MHz Reallocation Notice*”). Today, there are 95 full service NTSC facilities licensed or with an approved construction permit on channels 60-69. In this band there are also 20 DTV allotments of which 16 DTV facilities are either licensed or have an authorized construction permit.

⁴⁵ *Sixth Report and Order*, 12 FCC Rcd at 14591, 14624 ¶¶ 4, 76

⁴⁶ See Balanced Budget Act of 1997, Pub. L. No. 105-33, 111 Stat. 251 § 3004 (1997) (“1997 Balanced Budget Act”) (adding new Section 337 of the Communications Act).

⁴⁷ *Reallocation of Television Channels 60-69, the 746-806 MHz Band*, 12 FCC Rcd 22953 (1998) (“*Reallocation Report and Order*”).

⁴⁸ See *Sixth Report and Order*, 12 FCC Rcd at 14626, ¶ 80

Upper 700 MHz Band (746-806 MHz) would be fully protected during the **DTV** transition. The Balanced Budget Act of 1997 requires that the Commission establish any technical restrictions necessary to protect analog and digital television service in the 746-806 MHz band during the transition.⁴⁹ In the *Reallocation Report and Order*, we reiterated our commitment to full interference protection for analog licensees, and indicated that incumbent analog TV and DTV operations in the band would be entitled to protection from new services during the **DTV** transition.⁵⁰ We addressed the protection of analog and **DTV** operations in the 764-776 MHz and 794-806 MHz public safety bands in the *Public Safety Spectrum Report and Order*,⁵¹ which adopted service rules for public safety uses of this spectrum. We subsequently applied the same analog TV protection criteria adopted in that Order to commercial wireless services using the 747-762 MHz and 777-792 MHz bands.⁵²

44. For both public safety and commercial services, we adopted geographic separation requirements to provide protection for analog TV stations' hypothetical Grade B contour (approximately 88.5 km or 55 miles from each station's transmitter).⁵³ For protecting DTV reception, we applied similar criteria to limit the permitted interfering signal of a new wireless licensee at a DTV station's hypothetical service contour.⁵⁴ Thus, the same level of protection effectively is mandated to analog and DTV stations (i.e., the wireless station's interfering contour cannot fall within 88.5 km of the television station's transmitter).

Lower 700 MHz Band (Channels 52-59)

45. The Lower 700 MHz Band (698-746 MHz) is significantly more encumbered with TV operations than the Upper 700 MHz Band.⁵⁵ Unlike channels 60-69, early recovery of channels 52-59 (698-746 MHz) was not Contemplated in the **DTV** transition plan. Both Congress and the Commission initially expected that the Lower 700 MHz Band would be made available for new services after the

⁴⁹ 47 U.S.C. § 337(d)(2) (codifying 1997 Balanced Budget Act § 3004).

Reallocation Report and Order, 12 FCC Rcd at 22964-65, ¶ 24. See also Footnote NG159, Table of Frequency Allocations, 47 C.F.R. § 2.106.

⁵¹ See *In the Matter of the Development of Operational, Technical and Spectrum Requirements for Meeting Federal, State and Local Public Safety Agency Communications Requirements Through the Year 2010*, 14 FCC Rcd 152 (1998) ("Public Safety Spectrum Report and Order").

⁵² See *In the Matter of Service Rules for the 746-764 and 776-794 MHz Bands, and Revisions to Part 27 of the Commission's Rules*, 15 FCC Rcd 476 (2000) ("Upper 700 MHz First Report and Order").

⁵³ See *Public Safety Spectrum Report and Order*, 14 FCC Rcd at 221, ¶ 152; *Upper 700 MHz First Report and Order*, 15 FCC Rcd at 532, ¶ 139. See also 47 C.F.R. §§ 90.545, 27.60. The Grade B contour for an analog UHF TV station is the locus of points at distances from the transmitter where the predicted signal level equals 64 dBu. The Grade B contour for an analog UHF TV station that is operating at a power level of 1 megawatt and an antenna height of 610 meters height above average terrain ("HAAT") is approximately 88.5 km (55 miles) from the station's transmitter.

⁵⁴ See *Public Safety Spectrum Report and Order*, 14 FCC Rcd at 222-23, ¶ 155; *Upper 700 MHz First Report and Order*, 15 FCC Rcd at 532, ¶ 139. For a DTV station, the service contour is where the predicted signal level equals 41 dBu. The location of the "hypothetical service contour" for a DTV station is the same 88.5 km distance from the DTV transmitter as the hypothetical Grade B contour is from an analog TV transmitter.

⁵⁵ There are 101 full service NTSC incumbents and 166 DTV incumbents on channels 52-59.

auction of the Upper 700 MHz Band.⁵⁶ Although Congress did not specify the amount of spectrum to be reclaimed beyond the Upper 700 MHz Band, the Commission determined that all broadcasters could operate with digital transmission systems in channels 2-51 after the transition, thus allowing channels 52-59 to be reclaimed for new services.⁵⁷

46. In January 2002, we released an Order reallocating and adopting service rules for the 698-746 MHz spectrum band.⁵⁸ We reallocated the entire 48 megahertz of spectrum in this band to fixed and mobile services and retained the existing broadcast allocation for new broadcast services. In addition, we retained the allocation for incumbent broadcast services in this band during the transition to DTV. In the *Lower 700 MHz Band Report and Order*, we adopted the same protection criteria for analog TV stations in that band as adopted for the Upper 700 MHz Band.⁵⁹ With respect to co-channel DTV interference, however, we concluded that a more conservative approach should be applied to ensure adequate protection from wideband wireless systems in the Lower 700 MHz Band.⁶⁰ The more conservative approach was warranted because the number and density of incumbent DTV stations in the Lower 700 MHz band is greater than in the Upper 700 MHz Band. For protection of DTV stations against adjacent channel interference, we adopted the same criterion applied to adjacent DTV stations in the Upper 700 MHz Band.⁶¹

TV Protected Service Contour Alternatives

47. In the *Public Safety Spectrum Report and Order*, we addressed the issue of whether to protect TV reception based on a geographic separation table using a standard 88.5 km (55 mile) Grade B service contour or a case-by-case approach protecting TV stations based on their "actual" Grade B contours.⁶² Under the first approach, the minimum separation distances could be put in a table, thereby

⁵⁶ The 1997 Balanced Budget Act directed the Commission to reallocate certain portions of the Upper 700 MHz spectrum from broadcast use to commercial use by December 31, 1997, *see* 47 U.S.C. § 337(a) (added by § 3004 of the 1997 Balanced Budget Act), but not to commence competitive bidding for the commercial licenses on the reallocated spectrum before January 1, 2001, *see* 47 U.S.C. § 337(b)(2). That deadline was subsequently accelerated. *See* consolidated Appropriations Act, 2000, Pub. L. No. 106-113, 113 Stat. 2502, app. E § 213; 145 Cong. Rec. H12493-94 (Nov. 17, 1999) ("Consolidated Appropriations Act"). By contrast, the former statutory deadline of September 30, 2002, for assigning licenses and repaying total auction revenues to Congress (*see* former 47 U.S.C. § 309(j)(14)(C)(ii)) was recently eliminated for all but the C and D block licenses in the lower 700 MHz band.

⁵⁷ *See Advanced Television Systems and Their Impact upon the Existing Television Broadcast Service*, 13 FCC Rcd 7418, 7435, ¶ 42 (1998).

⁵⁸ *In the Matter of Reallocation and Service Rules for the 698-746 MHz Spectrum Band (Television Channels 52-59)*, 17 FCC Rcd 1022 (2002) ("*Lower 700 MHz Report and Order*"). The auction of channels 54, 55, and 59 has closed and the post-auction licensing process is underway.

⁵⁹ *Id.* ¶ 38.

⁶⁰ Specifically, we adopted a desired/undesired ("D/U") ratio of 23 dB corresponding to a maximum land mobile or broadcast field strength of 18 dBu for co-channel transmissions. The Commission stated: "This criterion will best protect existing broadcast operations, which will likely remain in operation until the end of the transition to DTV, which may extend beyond the 2006 target date." *Id.* ¶ 56.

⁶¹ The Commission adopted the criterion of -23 dB D/U for protection of DTV stations against adjacent channel interference, the same as it applied for DTV stations in the Upper 700 MHz Band. *Id.*

⁶² *See* 47 C.F.R. § 90.545(c).

simplifying planning of wireless communications systems. We expressed concern, however, that limiting TV and DTV separation from land mobile radio facilities to distances specified in a table could prevent public safety entities from fully using the spectrum in a number of major metropolitan areas until after the end of the transition. In order to give flexibility to public safety entities to locate base stations closer than the distance specified in the reparation table without causing excessive interference to TV and DTV stations, we adopted alternative methods for demonstrating required interference protection."

48. Specifically, three alternative methods of interference protection are specified in Section 90.545 of the Commission's rules. First, applicants may use the geographic separation specified in tables in the rules. Second, applicants may submit engineering studies to justify the proposed separations based on the "actual" parameters of the land mobile station and the "actual" parameters of the TV/DTV station(s) it is trying to protect. This method permits public safety applicants to take into account intervening terrain and engineering techniques, such as directional and down-tilt antennas, in determining the necessary separation to provide the required protection. Third, applicants may obtain written concurrence from the applicable TV or DTV station.⁶⁴ In the **Upper 700 MHz Report and Order** and the **Lower 700 MHz Report and Order**, we incorporated these alternative methods of interference protection for public safety applicants into Section 27.60 of the rules, which governs commercial wireless operations in the Upper and Lower 700 MHz Bands.⁶⁵

2. Definition of "Actual" Broadcast **Parameters** Under Sections **90.545(c)(1)(ii)** and **27.60(b)(1)(iii)**

49. For each analog TV and DTV station, there are at least three types of facilities that may be eligible for interference protection: licensed facilities, facilities specified in a construction permit ("CP"), and the facilities requested in an application filed with the Commission. In addition, DTV

⁶³ See **Public Safety Spectrum Report and Order**, 14 FCC Rcd at 224, ¶ 158

⁶⁴ 47 C.F.R. § 90.545(c). That provision states, in part:

- (1) Licensees of stations operating within the ERP and HAAT limits of paragraph (b) must select one of three methods to meet the TV/DTV protection requirements, subject to Commission approval:
 - (i) utilize the geographic separation specified in the tables referenced below;
 - (ii) submit an engineering study justifying the proposed separations based on the actual parameters of the land mobile station and the actual parameters of the TV/DTV station(s) it is trying to protect; or,
 - (iii) obtain written concurrence from the applicable TV/DTV station(s). If this method is chosen a copy of the agreement must be submitted with the application.

⁶⁵ See **Upper 700 MHz Report and Order**, 15 FCC Rcd at 532, ¶ 139; **Lower 700 MHz Report and Order**, 17 FCC Rcd at 1068-69, ¶ 119. Because the new Lower 700 MHz Band licensees can use higher power than was allowed for Upper 700 MHz Band licensees, section 27.60(b)(1)(ii) also provides for a fourth alternative method, stating:

- (1) Licensees of stations operating within the ERP and HAAT limits of § 27.50 must select one of four methods to meet the TV/DTV protection requirements, subject to Commission approval: ...
 - (ii) when station parameters are greater than those indicated in the tables, calculate geographic separation in accordance with the required D/U ratios, as provided in paragraph (a) of this section; ...

stations may also be entitled to protection of facilities that replicate their analog service area," and/or the facilities specified in a DTV STA.⁶⁷ A number of the interference protection issues raised herein with respect to the 698-806 MHz band relate to the interpretation of the alternative protection criteria for wireless operators set forth in Sections 90.545(c) and 27.60(b) of the rules, and whether those provisions require protection of broadcast authorizations and allotments. In particular, do these provisions require protection of broadcast authorizations and allotments when the station's operating parameters are less than the parameters described in an existing authorization or allotment?

50. Sections 90.545(c) and 27.60(b) describe alternative methods for a wireless applicant or licensee in the 700 MHz band to move its stations closer to an analog TV or DTV antenna while still complying with the interference protection requirements in the rules. Pursuant to one of these alternatives, the applicant or licensee may submit an engineering study that considers the "actual," rather than "hypothetical," parameters of the analog TV or DTV station and that demonstrates that intervening terrain or other factors permit the land mobile stations and these facilities to be more closely spaced. In the Order adopting this alternative, we stated that applicants should be allowed to submit engineering studies showing how they propose to meet the appropriate desired/undesired ("D/U") signal strength ratio at the existing TV station's "authorized or applied for" Grade B service contour or equivalent contour for DTV stations instead of the hypothetical Grade B contour."

51. We tentatively conclude that Sections 90.545(c)(1)(ii) and 27.60(b)(1)(iii) should be amended to make clear that the interference protection specified in those provisions should be afforded to authorized and/or applied for NTSC and DTV facilities, including the facilities specified on the broadcast station's license or construction permit or both when a station has both a license and a construction permit. We invite comment on this approach. If we do not protect all authorized and/or applied for facilities, what facilities should be protected?

3. Replication

52. We invite comment on the extent to which facilities defined in the DTV Table of Allotments on channels 52-69 should be protected by wireless operators and other services in those bands. In other words, in addition to protecting authorized and/or applied for facilities, should we interpret the requirement that wireless operators and other services protect the "actual" parameters of existing TV stations to require protection of full replication facilities, regardless of whether the DTV station is currently operating, or has filed an application to operate, pursuant to those facilities?⁶⁹ If so, how long should this interference protection last?

⁶⁶ In creating the initial DTV Table of Allotments, each DTV allotment was chosen to permit the station's DTV service, to the extent possible, to match or "replicate" the Grade B service contour of the NTSC station with which it was paired. *Sixth Report and Order*, 12 FCC Rcd at 14605, ¶¶ 29-30.

⁶⁷ In the *First DTV Periodic Review MO&O* we permitted DTV stations to begin digital operations under an STA with facilities that provide at least the minimum permissible level of service to the community of license. These DTV STA facilities provide less coverage than the station's DTV allotment or than authorized by an outstanding CP or license.

⁶⁸ *Public Safety Spectrum Report and Order*, 14 FCC Rcd at 224, ¶ 158

⁶⁹ For example, a station could be operating pursuant to a DTV construction permit, license, or STA with facilities that are less than full replication facilities.

53. We tentatively conclude that DTV full replication facilities should be protected as "actual." We seek comment on this view and on whether we should establish the same interference protection deadline for replication facilities for stations on channels 52-69 as we will establish in this proceeding for stations on in-core channels." In order to allow new services to be provided in portions of replication areas that a DTV licensee may never plan to serve, should we establish an earlier replication protection deadline for any of these channels, and particularly channels 60-69? The Commission has planned for the early recovery of channels 60-69 since the development of the initial DTV allotments. In addition, there are relatively few television stations in this band as compared to the Lower 700 MHz Band." Would an earlier replication protection deadline be appropriate for channels 60-69 to increase the incentive of broadcasters in this band to complete construction of their allotted facilities? If so, what deadline should be established?

4. Maximization

54. We invite comment on whether we should establish an earlier deadline for loss of interference protection to the unserved areas described in existing maximization authorizations on channels 52-69 than the deadline we establish for maximization facilities on in-core channels." DTV broadcasters operating on out-of-core channels may have little incentive to incur the cost necessary to increase their coverage area as they will receive interference protection only until the end of the DTV transition. Nonetheless, DTV broadcasters in this band have applied for facilities to expand ("maximize") their coverage as well as to make other changes that alter the area they serve. For example, a broadcaster may have applied to co-locate its antenna site with that of other DTV broadcasters or may have been forced to move to a new site for zoning or other technical reasons. We also invite comment on whether we should establish the same maximization interference protection deadline for the entire 700 MHz band, or treat the upper and lower bands differently. For example, should we establish a shorter deadline for stations on channels 60-69 in view of the relatively small number of broadcast incumbents in this band and our commitment to early recovery of this spectrum? If we were to establish a different deadline for all or part of channels 52-69, what should that deadline be?

5. Future Modification Applications

55. In June 2002, the Media Bureau adopted a freeze on the filing of analog TV and DTV "maximization" applications in channels 52-59.⁷³ The Bureau announced that it would not accept for filing television modification applications that would increase a station's analog or DTV service area in channels 52-59 in one or more directions beyond the combined area resulting from the station's parameters as defined in the following: (1) the DTV Table of Allotments; (2) Commission authorizations (license and/or construction permit); and (3) applications on file with the Commission prior to release of the Public Notice. The Bureau will consider, on a case-by-case basis, requests for waiver of the freeze on new maximization applications in channels 52-59 where the application would permit co-location of

⁷⁰ The Commission has stated that it will protect the "full coverage area" of DTV stations until the end of the DTV transition period *Reallocation Report and Order*, 12 FCC Rcd at 22969-70, ¶ 36.

⁷¹ See *Lower 700 MHz Report and Order*, 17 FCC Rcd at 1038-39, ¶ 38.

⁷² See section C, *supra*.

⁷³ Public Notice, *Freeze on the Filing of TV and DTV "Maximization" Applications in Channels 52-59*, DA 02-1440 (rel. June 18, 2002).

transmitter sites or is otherwise necessary to maintain quality service to the public.⁷⁴ The freeze was adopted to assist participants in Auction No. 44, consisting of spectrum licenses in the Lower 700 MHz Band, to determine the areas potentially available in the band for the provision of service by auction winners before the channels are cleared of broadcast stations. That auction was scheduled to begin June 19, 2002, but was postponed in compliance with the Auction Reform Act of 2002.⁷⁵

56. The Media Bureau recently adopted a similar freeze on the filing of analog TV and DTV “maximization” applications in channels 60-69.⁷⁶ As with the freeze on maximization in channels 82-89, the Bureau will consider requests for waiver of the freeze on channels 60-69 on a case-by-case basis for stations that propose an increase or shift in coverage under certain circumstances, including to permit co-location at a common antenna site or to resolve certain technical difficulties. We intend to protect applications for waiver under these maximization filing freezes in the same manner that we protect other pending applications. Absent a waiver, future applications for maximization of facilities on channels 52-69 now are foreclosed.

6. Applications for New Analog TV or DTV Facilities

87. In the *DTV Sixth Report and Order*, the Commission determined it would not authorize new DTV facilities in channels 60-69.⁷⁷ In the *Reallocation Report and Order*, we determined that we would not authorize additional new analog full-service television stations on channels 60-69, and that we would dismiss any application or allotment petition for a new analog facility that was not satisfactorily amended to specify a channel below channel 60 by the established deadline.” Thus, there will be no new analog TV or DTV entrants in the 746-806 MHz band that wireless and other new service providers must protect.⁷⁹

58. In the *Lower 700 MHz Band Report and Order*, we dismissed pending petitions for new NTSC channel allotments in this band, stating that adding new analog TV allotments or stations at this stage of the transition would be inconsistent with the DTV transition process.” With respect to applications for construction permits for new analog TV stations in this band, we provided a 45-day opportunity for applicants to request a change in their pending applications to either (1) provide analog or digital service in the core television spectrum, *i.e.*, channels 2-81, or (2) provide digital service in the 698-740 MHz band, *i.e.*, channels 52-58.⁸¹ Any applications or rulemaking proposals and later associated

⁷⁴ For example, waivers will be considered where zoning restrictions preclude tower construction at a particular site or where unforeseen events, such as extreme weather events or other extraordinary circumstances, require relocation to a new tower site. In particular, the Bureau has noted that it would be inclined to grant waivers of the freeze for broadcast stations that seek new tower sites due to the events of September 11, 2001.

⁷⁵ *See, supra*, n. 23.

⁷⁶ Public Notice, Freeze on the Filing of TV and DTV “Maximization” Applications in Channels 60-69, DA 03-46, rel. January 24, 2003.

⁷⁷ *DTV Sixth Report and Order*, 12 FCC Rcd at 14611, ¶ 182.

⁷⁸ *Reallocation Report and Order*, 12 FCC Rcd at 22971, ¶ 40. *See Public Notice*, 14 FCC Rcd 19559 (1999).

⁷⁹ However, pursuant to the requirements of Part 27, wireless and other new service providers must protect any new broadcast services provided on spectrum acquired through the commercial wireless auction.

⁸⁰ *Lower 700 MHz Band Report and Order*, 17 FCC Rcd at 1042, ¶ 44

⁸¹ *Id.*

applications filed by pending applicants during this 45-day window must be protected by wireless and other entities. Because of the adjacent channel interference that new stations on channel 59 could cause to new licensees in the adjacent Upper 700 MHz band, we concluded that we will no longer accept or grant any application for a new analog TV or DTV station on channel 59 nor permit an existing DTV station to modify its channel to channel 59. We required parties with outstanding applications specifying channel 59 to request another channel within 45 days after release of the *Lower 700 MHz Band Report and Order*.⁸²

59. With respect to the Lower 700 MHz Band, digital service in the band could be proposed after the auction by a station with an existing DTV allotment on a channel outside the 52-58 band seeking to move to a channel inside this band or by a DTV station inside this band seeking to move to another channel inside the band. We invite comment on whether and how we should protect such proposed digital service on channels 52-58. The Commission has not precluded such new, post-auction digital service in channels 52-58, but should such service proposals be protected by wireless and other services operating on channels already acquired through auction? If so, how should these proposed digital services be protected, as auction bidders and winners may have no prior notice of the channels these digital operators may request? We clarify that any such protection afforded would be only for the duration of the transition since DTV stations out of the core must eventually move within the core. As a practical matter we expect few broadcasters to seek to move from the core into 52-58 because they would have to move again at the end of the transition. We also seek comment on whether 47 C.F.R. § 73.622 should be amended to require that a broadcaster proposing a channel change that would cause harmful interference to a new entrant on channels 52-59 demonstrate that no other suitable channels are available on 52-58 that would avoid such interference.

7. Channel 51

60. Finally, we seek comment on the interference protection that should be afforded by wireless entities and other new service providers to future analog TV and DTV facilities on channel 51 that are authorized or requested after the auction of the spectrum comprising channel 52. Channel 51 will remain allocated to broadcast use as part of the core television spectrum (channels 2-51), and is available for use by existing and new analog TV and DTV stations. However, because channel 51 is adjacent to channel 52, we are concerned about possible interference between new wireless licensees on channel 52 and operations on channel 51. In the *Lower 700 MHz Report and Order*, we declined to adopt a guard band or other specialized mechanism to protect DTV operations on channel 51, and stated that we would instead rely on interference protection criteria to ensure that new licensees adequately protect core channel TV and DTV operations.⁸³ We noted that the adjacent channel protection for TV and DTV stations on channels 52-69 is no different from the protection for those stations in the core spectrum; only the duration of that protection differs.⁸⁴ In light of our concern about possible adjacent channel interference, we seek comment on whether we should provide the same level of adjacent channel protection to future analog and digital broadcast facilities on channel 51 as is currently provided by wireless or other operators to incumbent analog and digital stations on this channel and, if so, how we can

⁸² *Lower 700 MHz Band Report and Order*, 17 FCC Rcd 1042-43, ¶ 45

⁸³ *Id.* ¶ 23

⁸⁴ Because DTV stations on channels 52-69 will eventually relocate to the core TV spectrum, the broadcast interference protection standards on channels 52-69 will no longer apply after the transition. By contrast, the need for protection of broadcast operations on core TV channel 51 will continue indefinitely.

accomplish such protection without unduly restricting use of the channel 52 spectrum,

E. Pending DTV Construction Permit Applications

61. A number of television licensees have not yet been granted an initial construction permit ("CP") for a DTV facility. Almost all of these licensees have filed an application for a digital CP, but grant of these applications has been delayed for a variety of reasons including delays in international coordination with Canada and Mexico and unresolved interference issues. While the Commission has successfully resolved a number of obstacles to grant of outstanding digital CP applications, and the number of licensees without an initial digital CP has been significantly reduced, approximately 140 commercial and noncommercial television licensees still have not yet been granted an initial DTV CP. To date, these applicants have not been required to construct DTV facilities pending action on their outstanding DTV applications.

62. To ensure that all licensees that have been awarded digital spectrum begin to provide digital service, we propose to require that all such television licensees that have filed an application for a digital CP with the Commission that has not yet been granted must commence digital service pursuant to special temporary authority ("STA") within one year from adoption of the Report and Order in this proceeding. Within this time frame, these applicants would be required to request an STA from the Commission and to construct at least the minimum initial facilities required to serve their community of license, as specified in the policy outlined in the *First DTV Periodic Review MO&O*.⁸⁵ These STA facilities would necessarily be equal to or less than those specified in a station's initial DTV allocation as specified in Appendix B of the *DTV Sixth Report and Order*.⁸⁶ Such facilities generally require minimal or no international coordination. The Commission will consider requests for waiver of this construction deadline, on a case-by-case basis, in limited circumstances (e.g., where the construction requirement would be unduly burdensome because the licensee is seeking to move its tower site from its initial location, or where grant of the initial CP application appears imminent). While the Commission will continue to work with applicants to resolve outstanding issues and to process pending applications for digital facilities, this proposal would ensure that applicants that have not yet received a digital CP begin to construct and operate at least the minimum initial digital facilities permitted under our rules, and begin to provide service to their community. We request comment on this proposal. We also request comment on whether the channel election and interference protection deadlines adopted in this proceeding should apply to these licensees and, if not, what other deadlines would be appropriate.

F. Noncommercial Educational Television Stations

63. Noncommercial television broadcasters are scheduled to complete construction of their digital stations and commence digital service by May 1, 2003. As noted above, 84 of the 373 noncommercial television stations are already airing a digital signal ahead of schedule. In the *DTV Fifth Report and Order*, we acknowledged the financial difficulties faced by noncommercial stations in constructing digital facilities.⁸⁷ We gave noncommercial licensees the longest period of time to complete construction of any

⁸⁵ *First DTV Periodic Review MO&O*, 16 FCC Rcd at 20608-09, ¶¶ 34-36; 47 C.F.R. § 73.625(a)(1)

⁸⁶ DTV Table of Allotments, *Second Memorandum Opinion and Order on Reconsideration of the Fifth and Sixth Report and Orders*, 14 FCC Rcd 1348 (1998), *recon. dismissed*, DA 99-1361, rel. July 12, 1999, *recon. dismissed*, FCC 00-59, rel. February 23, 2000, at Appendix B.

⁸⁷ *Fifth Report and Order*, 12 FCC Rcd at 12852, ¶ 104.

category of DTV applicant, and stated that we would consider in our periodic reviews what additional special treatment, if any, should be afforded to noncommercial broadcasters.

64. We invite comment on whether noncommercial broadcasters that are not already airing a digital signal anticipate they will meet the May 1, 2003 construction deadline. For any station that does not anticipate meeting the deadline, what obstacles are preventing completion of construction? We also invite comment generally on what steps, if any, the Commission should take to assist noncommercial stations in the transition to DTV. For example, should the financial hardship standard for grant of an extension of time to construct a digital television station be applied differently to noncommercial licensees?

G. Simulcasting

65. In the DTV *Fifth Report and Order*, we adopted rules requiring DTV licensees to simulcast 50% of the video programming of their analog channel on their DTV channel by April 1, 2003. This requirement increases to a 75% simulcast requirement in April 2004, and a 100% requirement in April 2005.⁸⁸ The simulcasting requirement was intended to ensure that consumers will enjoy continuity of free over-the-air program service when we reclaim the analog spectrum at the conclusion of the transition. We stated that it may be difficult to terminate analog broadcast service if broadcasters show programs on their analog channels that are not available on their digital channels.” We recognized that we would need to clearly define simulcasting in the context of DTV, and stated that we would do so as part of our periodic reviews or other appropriate proceeding.⁹⁰

66. We seek comment on whether we should retain, revise or remove the simulcast requirement, how to define simulcasting, and whether the existing dates are appropriate. What extent of program duplication should be required to fulfill simulcasting obligations? Does the ultimate requirement of 100% simulcasting other than at the very end of the transition create disincentives for broadcasters to innovate? If broadcasters have a market-based incentive to simulcast and currently are simulcasting 100% of their analog programming on their digital channel, is a regulatory requirement to simulcast necessary? Is the simulcasting requirement causing broadcasters to forego creative uses of digital technology? Would something less than a 100% simulcast requirement be sufficient to protect analog viewers while allowing for innovation on the DTV channels? If maintaining some simulcast obligation is appropriate, we seek comment on whether we should revise the current dates for the phase-in of simulcast requirements.

67. The Commission has used the term simulcasting in different ways in the DTV proceedings, including simultaneous carriage of the same programming on two different channels and the broadcast on one channel of the same basic material broadcast on the paired channel, excluding commercials and promotions, within 24-hours.⁹¹ Any simulcasting requirement should allow broadcasters to take advantage of the flexibility of the DTV channel. Therefore, “same program” would be interpreted broadly to allow broadcasters to take advantage of various digital features, including

⁸⁸ *Fifth Report and Order*, 12 FCC Rcd at 12832, ¶ 54, see also 47 C.F.R. § 73.624(f).

⁸⁹ *Fifth Report and Order*, 12 FCC Rcd at 12833, ¶ 56

⁹⁰ *Id*

⁹¹ *First Report and Order*, 5 FCC Rcd 5627 n.1 (1990); *Memorandum Opinion and Order/Third Report and Order/Third Further Notice of Proposed Rule Making*, 7 FCC Rcd 6924,6978 (1992).

different camera angles and aspect ratios, additional program information, and interactivity. We propose a definition of simulcasting in the DTV context as follows:

Within a 24-hour period, the broadcast on a digital channel of the same programming broadcast on the analog channel, excluding commercials and promotions and allowing for enhanced features and services.

We request comment on this proposed definition. We also seek comment on how simulcast requirements and the definition of "simulcasting" relate to the substantial duplication decisions in the must carry portions of the Act."

Effect on Prime Time Broadcasting Requirements

68. If we decide to eliminate or change the simulcasting requirements, we must adjust the digital broadcast schedule requirements that are currently pegged to the simulcast requirements. In the *First DTV Periodic Review MO&O*, we allowed DTV stations subject to the May 1, 2002, or May 1, 2003, construction deadlines, including stations subject to those deadlines that were currently on the air early, to operate initially at a reduced schedule by providing, at a minimum, a digital signal during prime time hours, consistent with their simulcast obligations.⁹³ We propose that, if we eliminate or reduce the simulcasting requirements in Section 73.624(f), we amend Section 73.624(b)(1) to require DTV stations subject to the May 1, 2002, or May 1, 2003, construction deadlines to air, by April 1, 2003, a digital signal for an amount of time equivalent to 50% of the amount of time they provide an analog signal. The digital signal must be aired during prime time hours. This minimum digital operation requirement would increase to 75% on April 1, 2004 (requiring airing of a digital signal for an amount of time equivalent to at least 75% of the amount of time the station airs an analog signal), and to 100% on April 1, 2005.⁹⁴ We seek comment on this proposal and invite alternatives as well.

H. Section 309(j)(14)

69. Section 309(j)(14)(A) of the Communications Act requires the Commission to reclaim the 6 MHz each broadcaster uses for transmission of analog television service by December 31, 2006. Congress recognized, however, that not all stations will convert to DTV at the same time.⁹⁵ Thus, "to ensure that a significant number of consumers in any given market are not left without broadcast television service as of January 1, 2007,"⁹⁶ Congress required the Commission in Section 309(j)(14)(B) to grant extensions to any station in any television market if one or more of three conditions exist. We review below the language of Section 309(j)(14) and invite comment on how we should interpret certain portions

⁹² 47 U.S.C. §§ 614(b)(5) and 615(b)(3)(C).

⁹³ *First DTV Periodic Review MO&O*, 16 FCC Rcd at 20598-99, ¶¶ 11-12.

⁹⁴ Noncommercial television stations are not required to complete construction of their DTV facilities until May 1, 2003, later than the April 1, 2003 simulcast and minimum digital operation requirements. For these stations, the simulcast and minimum digital operation requirements become effective May 1, 2003 when these stations commence digital operation. Similarly, for television stations that have been granted an extension of time to complete construction of their DTV facilities, the station must comply with the simulcast and minimum digital operation requirements in effect at the time the station commences digital operations.

⁹⁵ Balanced Budget Act of 1997, 105th Cong., 1st Sess. Conf. Rep. 105-217, 576 (1997) ("Conference Report")

⁹⁶ *id.*

of that statutory provision. We also seek comment on establishing rules and timing deadlines governing how and when extension requests will be made.”

70. Section 309(j)(14) provides:

(A) LIMITATIONS ON TERMS OF TERRESTRIAL TELEVISION BROADCAST LICENSES. – A television broadcast license that authorizes analog television service may not be renewed to authorize such service for a period that extends beyond December 31, 2006.^[98]

(B) EXTENSION. – The Commission shall extend the date described in subparagraph **(A)** for any station that requests such an extension in any television market if the Commission finds that –

(i) one or more of the stations in such market that are licensed to or affiliated with one of the four largest national television networks are not broadcasting a digital television service signal, and the Commission finds that each such station has exercised due diligence and satisfies the conditions for an extension of the Commission’s applicable construction deadlines for digital television service in that market;

(ii) digital-to-analog converter technology is not generally available in such market; or

(iii) in any market in which an extension is not available under clause (i) or (ii), 15 percent or more of the television households in such market –

(I) do not subscribe to a multichannel video programming distributor (as defined in section 602) that carries one of the digital television service programming channels of each of the television stations broadcasting such a channel in such market; and

(II) do not have either

⁹⁷ On September 25, 2002 the Subcommittee on Telecommunications and the Internet of the House Committee on Energy and Commerce held a hearing concerning the digital transition and discussed draft omnibus Digital Television legislation that would amend the Communications Act by deleting Section 309(j)(14), thus eliminating the provisions that currently provide for the Commission to extend the deadline by which television broadcasters must cease analog television service. See <http://energycommerce.house.gov/107/drafts/dtvstaff.htm>

⁹⁸ License renewal authorizations granted by the Commission with terms extending beyond December 31, 2006, contain the following language: “on December 31, 2006, or by such other date as the Commission may establish in the future under Section 309(j)(14)(A) and (B) of the Communications Act, the licensee shall surrender either its analog or its digital television channel for reallocation or reassignment pursuant to Commission regulations. The channel retained by the licensee will be used to broadcast digital television only after this date.”

(a) at least one television receiver capable of receiving the digital television service signals of the television stations licensed in such market; or

(b) at least one television receiver of analog television service signals equipped with digital-to-analog converter technology capable of receiving the digital television service signals of the television stations licensed in such market.

Filing of Extension Requests

71. Section 309(j)(14)(B) provides that the Commission shall extend the date by which stations must cease analog service for qualifying stations that request an extension. We intend to develop a form to be used by stations to request an extension under this provision. We invite comment on when stations seeking an extension should be required to file their extension request. In general, we believe that extension requests should be filed sufficiently far in advance of the December 31, 2006, deadline to allow review of the request, but also as close as possible to the December 31, 2006, statutory deadline so that they more accurately reflect the full extent of transition progress in the applicable market at that time. We invite comment on the period of time for which extensions should be granted. We also invite comment on whether the Commission may grant a blanket extension under Section 309(j)(14)(B) to all stations in a market or nationally if the Commission finds that the criteria for return of analog spectrum have not been met. What findings would the Commission need to make in order to grant a blanket extension?

Definition of Television Market

72. Under Section 309(j)(14)(B), the Commission must consider whether any one of the three conditions for an extension exist in the requesting station's "television market." For purposes of applying Section 309(j)(14)(B), we invite comment on how we should define "television market." One option would be to define "television market" as the designated market area or DMA, as defined by Nielsen Media Research, in which the television station requesting the extension is located. A DMA is a geographic market designation that defines each television market based on measured viewing patterns.⁹⁹ Nonoverlapping DMAs cover the entire continental United States, Hawaii, and parts of Alaska. Counties are assigned to a market based on which home-market stations receive a preponderance of total viewing hours in the county.¹⁰⁰ Every television station in the United States is assigned to a DMA by Nielsen.¹⁰¹ Another option would be to define "television market" as the requesting station's Grade B contour. Each television station has its own Grade B contour. While the Grade B contours of stations often overlap, two stations are unlikely to have identical Grade B contours. Thus, under a Grade B market definition, the

⁹⁹ For purposes of this calculation, over-the-air, cable, and satellite-delivered television viewing are included.

¹⁰⁰ In other proceedings, the Commission has recognized that the DMA is more descriptive of a broadcast television station's potential market than the station's Grade B contour. The DMA more accurately captures actual television viewership patterns, as it considers cable carriage as well as over-the-air reception of broadcast signals. See, e.g., *Report and Order, Review of the Commission's Regulations Governing Television Broadcasting*, MM Docket No. 91-221, 14 FCC Rcd 12903, 12926, ¶ 48 (1999); *Second Further Notice of Proposed Rule Making*, MM Docket No. 91-221, 11 FCC Rcd 21655, 21663, ¶ 15 (1996).

¹⁰¹ U.S. territories have not been designated as DMAs by Nielsen.

applicable market to be analyzed would be unique for each station requesting an extension

73. Use of DMAs to define the applicable market may be more consistent with the language of Section 309(j)(14), which requires the Commission to grant an extension to “any station that requests such an extension in any television market.”¹⁰² This language seems to contemplate that each market will contain more than one television station, as is generally true of DMAs. The Grade B contour of any station requesting an extension, in contrast, is generally unique for each station, and therefore contains only one station. A Grade B test may also be more difficult to administer as market data, including information about digital-to-analog converter technology and the number of television households with digital television reception capability, would have to be compiled for the area within each requesting station’s Grade B contour, rather than DMA-wide.

74. Use of DMAs to define the applicable market for purposes of Section 309(j)(14)(B) would ensure that transition progress throughout the DMA is considered in determining whether the criteria for extension have been met. DMAs include virtually all urban and rural areas, thus ensuring that all television households are included. Thus, for example, under Section 309(j)(14)(B)(ii) (the “converter technology test”), the Commission would consider whether digital-to-analog converter technology is “generally available” throughout the DMA to determine whether an extension under this provision is warranted. A DMA test would permit the entire DMA to convert to an all-digital broadcast system at the same time. Analog service in the DMA would likely cease only when the conditions for an extension no longer exist throughout the DMA.¹⁰³ The Grade B contour reflects a station’s over-the-air viewing area, while the DMA more closely reflects where the station’s signal is also available via cable and satellite, thus reflecting the station’s market for purposes of advertising sales.¹⁰⁴ As parts of the United States, particularly in rural areas, do not lie within the Grade B contour of any full-power television station, a Grade B test would not consider transition progress in these areas before cessation of analog service.

75. A Grade B market definition, in contrast, may be more consistent with Section 309(j)(14)(B)(iii)(I), which requires grant of an extension where 15 percent or more of the television households in the market do not subscribe to an MVPD that carries “each” of the television stations broadcasting a digital signal in the market. Under a DMA market definition, if this provision were interpreted to require carriage of *all* stations in the market, it would be difficult, if not impossible, to meet this test, as cable systems almost never carry all stations in the DMA. Cable systems are more likely to carry all television stations within a given station’s Grade B contour, however.”

76. If we define the applicable market by reference to a station’s Grade B contour, we invite comment on whether we should refer to the station’s analog Grade B or the equivalent digital contour. In

¹⁰² 47 U.S.C. § 309(j)(14)(B)

¹⁰³ Although the statute provides that extensions are to be provided only to requesting stations, we assume that most if not all stations in a market will apply for an extension if it appears that conditions warranting an extension exist in the market. Nonetheless, it is possible that some stations will choose to cease analog transmissions by December 31, 2006, without requesting an extension.

¹⁰⁴ See, e.g., *Report and Order, Review of the Commission’s Regulations Governing Television Broadcasting*, MM Docket No. 91-221.14 FCC Rcd 12903, 12924-25, ¶ 43; 12928, ¶ 50 (1999) (concluding that some of a station’s viewers may live outside its designated DMA, but “the preponderance of its audience will reside within its DMA”) *Id.* at ¶ 50.

¹⁰⁵ See, *infra*, discussion of 15% test

addition, does the market of a station requesting an extension under Section 309(j)(14) include only the requesting station's Grade B contour, or also the Grade B contour of any TV translator retransmitting the requesting station's signal?"¹⁰⁶ While including the Grade B contour of TV translators would increase the number of households considered in determining whether the transition criteria have been met, it also makes the requesting station's market subject to change as TV translators are secondary facilities and could be required to reduce coverage or cease service by a mutually exclusive, primary facility.¹⁰⁷

77. The Grade B contour of many stations reaches more than one **DMA**. Under a DMA-only market test, a station could be denied an extension of its analog license without consideration of the status of the transition in a neighboring **DMA** where the station may have a significant number of viewers. To address this situation, another option would be to adopt a modified **DMA** market test that considers viewers in adjacent **DMA**s in situations where stations have a significant number of viewers in those **DMA**s. For example, where a station requesting a transition extension has a significant number of viewers in a **DMA** other than its designated **DMA** ("home **DMA**"), we could require that both **DMA**s meet the statutory criteria for the transition in Section 309(j)(14)(B). The advantage of such a modified **DMA** test is that it permits the necessary market analysis under Section 309(j)(14)(B) to be conducted on a DMA-wide rather than a Grade B basis, which better reflects the station's market and ensures that all households are considered, as well as significantly reducing the administrative burden and cost of the analysis, while ensuring that stations with significant viewership in more than one **DMA** have the status of the transition in each **DMA** considered before being required to cease analog service. We request comment on this approach. What percentage of viewership in other **DMA**s should be required before we include those other **DMA**s in the station's market (e.g., define the market to include any **DMA** in which 30% or more of the station's viewers reside)? In a **DMA** other than the home **DMA**, should we require that 85% or more of the households in the market have access to digital signals as defined in Section 309(j)(14)(B)(iii), or should we adopt a lower threshold number in these **DMA**s (e.g., no extension where 60% or more of households have access to digital service)? Do we have the authority under Section 309(j)(14)(B) to adopt a threshold below 85% in a second **DMA**? If we adopt a lower threshold number for **DMA**s other than the home **DMA**, what should that threshold amount be? Alternatively, we can retain the 85% criteria for each **DMA** but grant a station's request for extension if both its home **DMA** and the adjacent **DMA** where a significant percentage of its Grade B service is received do not meet the criteria in Section 309(j)(14).¹⁰⁸

78. How we define the "market" is important in applying each of the conditions for an extension under Section 309(j)(14)(B). We request comment on the impact of a **DMA**, modified **DMA**, or Grade B market definition on the availability of extensions under each of these conditions. For example, under Section 309(j)(14)(B)(iii)(I), an extension is available in a market where 15 percent or more of the television households in the market do not subscribe to an **MVPD** that carries one of the digital channels of each television station broadcasting in digital in the market. What would the effect be on the 15% test for an extension of defining the market as the station's **DMA** when the **DMA** is geographically very large,

¹⁰⁶ See, e.g., 17 U.S.C. § 119(a)(2), (d)(10) (households are deemed served by a station if they receive a signal of Grade B intensity). Such signals may be delivered by translator rather than the main station transmitter and may be outside the Grade B contour.

¹⁰⁷ The Commission does not presently have rules governing digital LPTV, translator, and booster operations. We intend to initiate a separate proceeding on digital operations by these facilities in the near future.

¹⁰⁸ For example, a station designated to the Miami DMA but with a significant percentage of the households within its Grade B service area who are in the West Palm Beach DMA would be granted an extension until both the Miami and West Palm Beach DMA's meet the 85% criteria.

thus increasing the likelihood that stations within the DMA would substantially duplicate each other or be unable to deliver a good quality signal to all the cable systems in the DMA?¹⁰⁹ If **DMA** is used for purposes of defining "television market," what effect, if any, would market modifications pursuant to Section 614(h)(1)(C) have on the appropriate definition." We invite comment on this point and other definitions of "market" for purposes of Section 309(j)(14)(B) and Justifications therefore.

Network Digital Television Broadcast Test

79. Under the first ground for an extension under Section 309(j)(14)(B), the Commission must grant an extension if one or more of the stations in the market that are licensed to or affiliated with one of the four largest national television networks" is not "broadcasting a digital television service signal, and the Commission finds that each such station has exercised due diligence and satisfies the conditions for an extension of the Commission's applicable construction deadlines for digital television service in that market." We invite comment on how we should interpret this provision. We read the language of Section 309(j)(14)(B)(i) to require that all stations in a market licensed to or affiliated with a top-four network must be broadcasting in digital before analog service is required to cease in the market, even if a top-four network has more than one affiliate in the market. We request comment on this view. Should we consider a station that is broadcasting a digital signal pursuant to a DTV STA, and providing service in compliance with the Commission's minimum initial digital television construction requirements,¹¹³ to be "broadcasting a digital television service signal" for purposes of this provision? We propose that a station not meeting such minimum initial DTV operating requirements would not be considered to be "broadcasting a digital television signal" within the meaning of this provision. Thus, extensions would be available under Section 309(j)(14)(B)(i) in any market where a top four network affiliate is not providing digital service in accordance with at least the Commission's minimum requirements for coverage of the community of license and hours of operation.¹¹⁴ We request comment on this proposal.

80. Under this interpretation -- requiring compliance only with the Commission's minimum initial DTV construction requirements -- an extension of time would not be available to stations in a market where the broadcast stations owned by or affiliated with a top four network were providing the minimum digital service permitted under our rules but were not yet providing digital service that fully replicates their analog service area. Under such interpretation, viewers dependent upon off-air reception and accustomed to receiving such a network station's analog signal, but who are outside the coverage area of the station's digital signal, could lose off-air service from the station when analog service is terminated.¹¹⁵

¹⁰⁹ See, *infra*, discussion of 15% test.

¹¹⁰ See 47 U.S.C. § 534(h)(1)(C)

¹¹¹ Currently, the top four television broadcast networks in the U.S. are **ABC**, **CBS**, **NBC**, and **Fox**

¹¹² 47 U.S.C. § 309(j)(14)(B)(i).

¹¹³ See 47 C.F.R. § 73.625(a)(1)(transmitter location and city grade coverage requirement); 73.624(b)(digital signal transmission and quality requirements and minimum hours of operation).

¹¹⁴ Two top-four network affiliated television stations in New York City (WABC-DT and WNBC-DT) were taken off the air as a result of the September 11, 2001 terrorist attack and have not yet rebuilt their DTV facilities. These stations have STAs to remain silent and are reconstructing.

¹¹⁵ This loss of service could arise either because the network-owned station or network affiliate itself was denied an extension of the December 31, 2006, date for cessation of analog service, or because the station simply ceased broadcasting its analog signal on December 31, 2006, in accordance with the statute.

Alternatively, we could require that a station be providing service to the entire area encompassed within the station's DTV allotment in order to be considered "broadcasting a digital television service signal" in the market under 309(j)(14)(B)(i). Under this interpretation, the Commission could not deny a request for extension of the deadline to cease analog broadcasts in a market where viewers accustomed to and dependent upon off-air reception of the analog signal of a top four network owned or affiliated station were not within the coverage area of that station's digital signal.¹¹⁶ To ensure that stations not postpone replication to delay return of analog spectrum, we propose that if we require service to the full replication area under 309(j)(14)(B)(i), we would not consider lack of replication to constitute lack of service after the replication protection deadline adopted in this proceeding.

81. Although NTSC service area replication is not mandatory, we believe that most DTV broadcasters will eventually fully replicate their NTSC service areas with DTV service. If we determine that a station must provide service to the entire area encompassed within the station's DTV allotment in order to be considered "broadcasting a digital television service signal" in the market under Section 309(j)(14)(B)(i), we may need to revisit our decision not to require full replication.

Converter Technology Test

82. Under the second ground for an extension under Section 309(j)(14)(B), the Commission must grant an extension to a requesting station if the Commission finds that digital-to-analog converter technology is not "generally available" in the market. For purposes of Section 309(j)(14)(B)(ii), we propose to define as a "digital-to-analog converter" units that are capable of converting a digital television broadcast signal to a signal that can be displayed on an analog television set. We invite comment on this definition. Should we consider as a "digital-to-analog converter" a unit that is not capable of displaying in analog format signals originally broadcast in all digital formats? We understand, for example, that some digital cable boxes can display in analog format digital signals originally broadcast in the equivalent of 480i format but not other digital formats, including HDTV. Should these units be considered under 309(j)(14)(B)(ii)?

83. We also request comment on how we should interpret the phrase "generally available" under Section 309(j)(14)(B)(ii). For example, should we require only that digital-to-analog converter boxes be available for sale at retail outlets in the market or for sale or lease from cable operators or satellite providers? How widespread must the availability be to be considered "generally available?" For example, is availability in one retail chain or from one cable operator "generally available?" Should availability for purchase over the internet be considered? Should the price of such units be considered? Is it sufficient if digital-to-analog converters have been introduced in the market, or should we also examine the number of digital-to-analog converter units already purchased and in use by consumers in the market? Should we also address the possibility of lack of general availability of converters in the face of widespread availability of DTV sets with integrated or non-integrated tuners, thus eliminating the need for converters? What if cable systems in the market are providing signals downconverted from digital to analog at the cable headend so that a digital-to-analog converter is not necessary to view DTV signals?

15 Percent Test

¹¹⁶ Loss of service could arise even under this interpretation if a television station that did not provide fully replicated digital service chose to cease analog transmissions without seeking an extension of the December 31, 2006, deadline.

84. Section 309(j)(14)(B)(iii) provides for a third ground for extension for markets that do not qualify under Sections 309(j)(14)(B)(i) or (ii). Section 309(j)(14)(B)(iii) sets forth a two-part test. The first prong of the test, described in Section 309(j)(14)(B)(iii)(I), is met where 15 percent or more of the television households in the market do not subscribe to an MVPD (as defined in 47 U.S.C. § 602) that carries one of the digital television service programming channels of each of the television stations broadcasting such a channel in such a market.”

85. Read literally Section 309(j)(14)(B)(iii)(I) appears to require that an MVPD, such as a cable system, must be carrying all of the television stations broadcasting a digital channel as a first step to satisfy this prong of the test. Read thus, if one or two digital television stations in a market are not carried by a cable or satellite provider (*e.g.*, because the station is not carried voluntarily and is not eligible for mandatory carriage”), then the criterion is not met. In almost all DMAs, there are stations that are not entitled to must-carry on cable systems in the DMA and that are not carried by the systems voluntarily. Did Congress intend that this prong would be very rarely satisfied in a market?

86. The Conference Report that accompanies Section 309(j)(14)(b) states:

The conferees emphasize that, with regard to the inquiry required by section 309(j)(14)(B)(iii)(I) into MVPD carriage of local digital television service programming, Congress is not attempting to define the scope of any MVPD’s “must carry” obligations for digital television signals. The conferees recognize that the Commission has not yet addressed the “must carry” obligations with respect to digital television service signals, and the conferees are leaving that decision for the Commission to make at some point in the future. However, for purposes of the inquiry under this section, a television household must receive at least one programming signal from each local television station broadcasting a digital television service signal in order not to be counted toward the 15 percent threshold.¹¹⁸

87. Is the statutory language clear on its face? Does the Conference Report shed light on Congress’ intent? We invite comment on whether there is a more flexible interpretation of the language in the statute. How should this language influence our definition of “market?” Can we conclude that only television broadcast stations that provide a good quality digital signal to the MVPD headend or local receive facility are contemplated by this language? If we use DMA as the market definition, what effect, if any, do market modifications pursuant to Section 614(h)(1)(C)¹¹⁹ have on the stations contemplated by Section 309(j)(14)(B)(iii)(I)? If we interpret Section 309(j)(14)(B)(iii)(I) as requiring carriage of only those digital stations in the market entitled to must-carry, the availability of extensions under this provision will be more limited, and the market is likely to transition to digital more quickly. On the other hand, if we interpret Section 309(j)(14)(B)(iii)(I) as requiring that all stations broadcasting digital signals be carried

¹¹⁷ Not every station in every market is required to be carried pursuant to mandatory carriage (*e.g.*, if it does not provide a good quality signal to the headend; it substantially duplicates the signal of another television station in the market, or the cable system has reached its one-third channel capacity). See 47 U.S.C. §§ 534(b)(1), (5), 534(h)(1)(B)(iii), 535(e), (g)(4), 47 C.F.R. §§ 76.55(c)(3), 76.56(a), (b)(5) (for commercial and noncommercial television stations on cable); 47 U.S.C. §§ 338(b),(c), 47 C.F.R. § 76.66(g), (h) (for commercial and noncommercial television stations on satellite).

¹¹⁸ Conference Report at 577

¹¹⁹ See 47 U.S.C. § 534(h)(1)(C).

regardless of the station's must-carry rights and signal delivery capability, this prong may be satisfied less often.¹²⁰ Moreover, a station could refuse to grant retransmission consent,¹²¹ and prevent carriage, which would in turn prevent the MVPD from counting towards the market transition. **As** a result, the analog licenses would be extended in every market in which the 15% criteria is not met by households possessing over-the-air digital or down-conversion equipment. Is this the result that Congress intended or that is compelled by the language in the statute?

88. We also invite comment on whether, under Section 309(j)(14)(B)(iii), MVPDs must carry only primary, full power television stations in the market, or also Class A LPTV stations¹²² or other secondary lion-Class A LPTV stations and TV translators. Secondary broadcast facilities must yield to mutually exclusive primary broadcast facilities. Class A, LPTV, and TV translator facilities are not protected from interference from certain other television broadcast facilities, and could be required to limit or cease broadcast service if they interfere with a new or modified mutually exclusive primary broadcast facility. In addition, while certain Class A, LPTV, and TV translators receive cable carriage, most do not. Thus, if Section 309(j)(14)(B)(iii) is read to require carriage of all of these facilities in the market, and "market" is defined as DMA, then this prong of the transition criteria will be satisfied less often. If, as discussed above, the market is defined as the station's Grade B contour or service area, then it may be more likely that cable systems within the station's Grade B area would carry that station (e.g., the signal quality issue is less likely to arise). How does this result influence our decision on the proper definition of market?"

89. It is likely that most viewers will subscribe to an MVPD carrying digital broadcast signals, but will not initially invest in equipment that allows them to view these signals. Although the statutory language of this provision refers only to MVPD carriage of the signal, it would arguably be inconsistent with the intent of Section 309(j)(14)(B) not to count such viewers toward the 15% threshold. Accordingly, we invite comment as to whether MVPD subscribers should count toward the 15% threshold if they cannot actually view digital television signals carried by the MVPD. The language of Section 309(j)(14)(B)(iii)(I) on its face does not appear to require subscriber ability to view digital signals. We believe that interpreting this statutory provision to require ability to view the digital signals, however, is consistent with the congressional purpose underlying the availability of extensions under Section 309(j)(14)(B); that is, to ensure that a significant number of consumers not lose access to television service during the transition from analog to digital.¹²³ Accordingly, we propose that, in order not to be counted toward the 15 percent threshold under Section 309(j)(14)(B)(iii)(I), a household must subscribe to a qualifying MVPD and must also have the capability to view digital broadcast signals. We seek comment on this view. We tentatively conclude that, under 309(j)(14), MVPD subscribers may receive signals in either digital mode (e.g., via either a DTV-capable set with an integrated tuner or a separate DTV set-top converter), or in analog mode

¹²⁰ Cable and satellite mandatory carriage requirements for digital signals are the subject of a separate proceeding. *Carriage of Digital Television Broadcast Signals*, First Report and Order and Further Notice of Proposed Rulemaking, 16 FCC Rcd 2598 (2001) ("*DTV Must Carry Report and Order*").

¹²¹ See 47 U.S.C. § 325(b).

¹²² Class A stations are low power television broadcast stations that have a hybrid spectrum status: that is, they must be protected by other Full and low power television broadcast stations, but not by DTV stations seeking to maximize power or make technically necessary adjustments to allotted engineering parameters.

¹²³ See *id.* 576-577 ("Thus, to ensure that a significant number of consumers in any given market are not left without broadcast television service as of January 1, 2007, the conference agreement includes new section 309(j)(14)(B) of the Communications Act which requires the Commission to grant extensions to any station in any television market if any one of the following three conditions exist.").

(*e.g.*, a digital signal converted to analog by a set-top digital-to-analog converter that allows the signal to be displayed on a non-DTV set). We invite comment on whether cable systems that downconvert digital signals to analog at the cable headend should be considered to be “carrying” digital broadcast signals within the meaning of Section 309(j)(14)(B)(iii)(I). What if the cable system carries the signal in analog format because the signal was delivered to the cable headend via a TV translator that operates only in analog format (*e.g.*, the parent station’s signal was originally broadcast in digital format and downconverted by the translator)? Similarly, how should we count viewers who receive over-the-air analog signals from a translator that has downconverted and rebroadcast the main station’s digital signal? Are such viewers counted toward the **85%** if they have DTV tuners even though the stations in their market are not delivering digital signals to them? Is the purpose of Section 309(j)(14): to ensure that viewers do not lose access to broadcast signals, to ensure that the transition to digital actually occurs, or both?

90. Under the second part of the 15% test, an extension should be granted if 15 percent or more of the television households in the market do not have either “(a) at least one television receiver capable of receiving the digital television service signals of the television stations licensed in such market; or (b) at least one television receiver of analog television service signals equipped with digital-to-analog converter technology capable of receiving the digital television service signals of the television stations licensed in such market.”¹²⁴

91. We invite comment on how we should interpret the phrase “capable of receiving the digital television service signals of the television stations licensed in such market.” Does this phrase require that a household be capable of over-the-air reception of all television stations licensed in the market in order not to be counted toward the 15 percent threshold for an extension? Under this interpretation, any household outside the service contour of any digital station in the market would be counted toward the 15 percent threshold under these provisions (recognizing that such households could be excluded from counting toward the 15 percent under 309(j)(14)(B)(iii)(I) if they are MVPD subscribers as defined in that provision). What if a household receives a parent station’s signal rebroadcast in analog format via TV translator (*e.g.*, the parent station originally broadcast the signal in digital format and the signal was downconverted to analog format by a TV translator)? We note that Section 74.701 of the Commission’s rules requires that TV translators retransmit the signals of the parent station “without significantly altering any characteristic of the original signal other than its frequency and amplitude.”¹²⁵ Should our rules permit TV translators to downconvert to analog format a signal originally broadcast by the parent station in digital format? As a separate issue, we propose to define television receivers “capable of receiving” DTV signals under 309(j)(14)(B)(iii)(II)(a) as television sets equipped with either integrated or separate (*e.g.*, set-top box) DTV tuners, and request comment on this definition.

92. For purposes of calculating households in the market to determine whether the 15 percent test is met under both prongs of Section 309(j)(14)(iii), we propose to interpret that provision as requiring grant of an extension where 15 percent or more of the television households in the market neither subscribe to an MVPD that carries local DTV signals (309(j)(14)(B)(iii)(I)), as defined above, nor have equipment capable of displaying signals originated in DTV (309(j)(14)(B)(iii)(II)). In other words, for a

¹²⁴ 47 U.S.C. § 309(j)(14)(B)(iii)(II).

¹²⁵ 47 C.F.R. § 74.701(a). Section 74.731(d) of the rules also states: “The technical characteristics of the retransmitted signals shall not be deliberately altered so as to hinder reception on conventional television broadcast receivers.” 47 C.F.R. § 74.731(d).

household to be counted in the 15 percent, that household must both be a non-subscriber (“non-subscriber” may include subscribers to MVPDs that carry the required DTV stations but who lack equipment to view such signals in either analog or digital format) and lack the capability to receive DTV signals over-the-air, either through a set with an integrated DTV tuner, via a DTV set-top box, or via a digital-to-analog downconverter. We believe that this interpretation best reflects the intent of Congress that “a significant number of consumers in any given market are not left without broadcast television service” as we transition from analog to digital.¹²⁶ Accordingly, we propose to grant extensions under Section 309(j)(14)(B)(iii) only where the requisite number of television households (15 percent or more) in the market are not capable of receiving digital signals either over the air or via an MVPD.¹²⁷ We request comment on this view.

Fact Finding Under 309(j)(14)(B)

93. Finally, we invite comment as to who bear the burden of demonstrating whether an extension of time is warranted under Section 309(j)(14). Depending upon the grounds advanced by the requesting station, extensive information collection could be required to establish that the criteria for an extension are met in the market. For example, determining the number of television households in the market that have access to digital signals, either by off-air reception or via an MVPD, could require significant fact finding. The statute provides that the Commission shall grant an extension “for any station that requests such extension” if the Commission finds that the statutory conditions are met. This language could be read to require the station seeking an extension to provide the necessary information to justify the extension under one or more of the statutory criteria. The legislative history of Section 309(j)(14), however, suggests that the conferees contemplated that the Commission would perform its own analysis and conduct a consumer survey to determine whether the criteria specified in 309(j)(14)(B)(ii)(converter technology test) or 309(j)(14)(B)(iii)(15 percent test) apply in the market. The Conference Report states:

In addition, the conferees recognize that this analysis [under 309(j)(14)(B)(iii)] will impose additional burdens on the Commission. Consequently, the conferees expect that the Commission will pursue this analysis only if it first concludes that a station does not qualify for an extension under the network digital television broadcast test or the converter technology test.

In establishing the requirements for the 15 percent test, the conferees sought to establish objective criteria that could be determined by “yes” or “no” answers obtained from consumers surveyed in the relevant market. The conferees expect that the Commission will perform its own analysis, and that it will base this analysis of both the converter technology test and the 15 percent test on statistically reliable sampling techniques. A broadcast television licensee requesting the extension and other interested parties are to be afforded an opportunity to submit information and comment on the Commission’s analysis with respect to those tests.¹²⁸

¹²⁶ Conference Report at 577.

¹²⁷ See *id.* (“a television household must receive at least one programming signal from each local television station broadcasting a digital television service signal in order not to be counted toward the 15 percent threshold”).

¹²⁸ *Id.* at 577-578.

94. We request comment on the extent to which the Commission is required to conduct consumer surveys or otherwise obtain information to determine whether an extension is required under 309(j)(14)(B). In addition, we invite comment on the nature of any survey that must be performed, the type of questions that should be included, and the percent of the television households in the market that must be included in the sample. Is it necessary to survey each market separately, or would a more wide-spread survey suffice to establish that a market meets one or more of the criteria for grant of an extension request? If the first survey conducted demonstrates that an extension is warranted, when should a new survey be performed to see if there has been further transition progress in the market?

I. DTV Labeling Requirements and Consumer Awareness

Y5. As the transition proceeds and accelerates for the industry participants, it becomes increasingly important to focus on consumer impact. A recent report to Congress by the General Accounting Office found that more than 95% of the 28 million television sets that were sold in the U.S. in 2001 were analog-only sets.” When the transition ends, consumers with analog-only sets will be unable to continue receiving over-the-air broadcast television without use of an external digital tuner or converter. The GAO Report also found that at least 40% of the public is unfamiliar with the digital transition” and 68% of those surveyed did not know that current analog televisions would require a converter box to keep working after the transition is complete.” Further, only 14% of those surveyed by the GAO were “very familiar” with the difference between analog and digital televisions.¹³²

96. In the first DTV periodic review proceeding, we sought comment on whether manufacturers were producing or planning to produce digital television receivers that would be able to receive digital format transmissions via cable, but that would not be capable of receiving digital broadcast signals over the air. We asked whether we should require digital television equipment that cannot receive over-the-air digital broadcast signals to carry a label informing consumers of this limitation on the receivers’ functionality.¹³³ Commenters responding to the further notice of proposed rulemaking in that proceeding suggested that the Commission should revise the labels it currently requires for DTV receivers marketed as “Digital Cable Ready 1, 2, or 3,”¹³⁴ to state, in addition, that they “will not receive over-the-

¹²⁹ See “TELECOMMUNICATIONS: Additional Federal Efforts Could Help Advance Digital Television Transition,” General Accounting Office Report, GAO-03-7, November 2002, (“GAO Report”) at 17. See also *First DTV Periodic Review Second Report and Order*, 17 FCC Rcd at 15994-5, ¶ 34.

¹³⁰ GAO Report at 15

¹³¹ GAO Report at 16

¹³² GAO speculates that even this number may be high, since consumers may be confusing current digital television services provided by cable or satellite with DTV. GAO Report at 16 and note 12.

¹³³ See *First DTV Periodic Review Report and Order*, 16 FCC Rcd at 5986, ¶ 111

¹³⁴ See *Compatibility Between Cable Systems and Consumer Electronics Equipment*, Report and Order, 15 FCC Rcd 17568 (2000). The Commission is considering a voluntary labeling regime and consumer disclosure requirements in connection with regulatory proposals made by members of the consumer electronics and cable television industries in a joint Memorandum of Understanding on a national “plug and play” standard for integrated, unidirectional digital cable television receivers and other unidirectional digital cable products. *Commercial Availability of Navigation Devices and Compatibility Between Cable Systems and Consumer Electronics Equipment*, Further Notice of Proposed Rulemaking, CS Docket No. 97-80 and PP Docket No. 00-67, FCC 03-3 (rel. Jan. 10, 2003).

air broadcast signals.¹³⁶ In the *First DTV Periodic Review Second Report and Order*, we required that all TV receivers with screen sizes greater than 13 inches manufactured in the U.S. after July 1, 2007 be capable of receiving DTV signals over-the-air.¹³⁶ After reviewing the comments on labeling in the proceeding, we decided not to require television receivers that cannot receive over-the-air digital broadcast signals to carry a label informing consumers of this limitation.¹³⁷ Rather, we determined that we would continue to monitor the state of the marketplace and would take additional steps if necessary to protect consumers' interests.¹³⁸

97. As part of our commitment to continue monitoring the marketplace, we seek further comment on whether manufacturers are producing or plan to produce digital television receivers that can receive digital format transmissions via cable or satellite but that cannot receive digital broadcast signals over the air. We also seek information on the number of "pure monitors" (without any tuner) intended for use in display of signals from video service providers that are currently produced or planned for production. Do equipment manufacturers plan to label such equipment to describe the reception limitations or need for additional receiving equipment? What is the potential for consumer confusion in connection with these devices? Should we require labeling on pure monitors that can be used to display video services: which neither receive off-air signals, nor are designed to be "digital cable ready," to advise consumers that the monitor cannot function to receive programming unless it is attached to an off-air tuner, or cable, or satellite receiver? Should we require labeling on digital television receivers that are not "digital cable ready" to indicate that the set "will not receive cable or satellite programming without the use of a converter"? We seek comment on these and other labeling options, as well as the need for and costs of such required disclosures.

98. In addition, we seek comment on whether the Commission should require a disclosure label on analog-only sets to inform consumers that a converter or external DTV tuner will be needed to ensure reception of television broadcast signals after stations in the consumer's market complete conversion to digital-only broadcasting. For example, we could require that all new analog sets display a label stating that "when broadcasters switch to digital broadcasting, this set will not receive or display television signals without the use of a converter." Where should the label be placed? Should there be additional point-of-sale disclosures? Should we require retailers to provide consumers with a digital conversion fact sheet with the purchase of all new television equipment? We seek comment generally on whether the Commission should implement labeling or notice requirements of any type for consumer television equipment to assist the transition and protect consumers. Finally, we seek comment on the Commission's authority to adopt any of the above labeling requirements. For instance, we seek comment on whether the Commission's authority could be derived from sections 1, 4(i), 303(r), 303(s), 336, 624A, or any other sections of the Communications Act.

J. Distributed Transmission Technologies

99. In the *First DTV Periodic Review Report and Order* we addressed comments requesting that the Commission adopt rules for on-channel DTV boosters, including an allowance for a distributed transmission system, but deferred consideration of distributed transmission techniques until we could

¹³⁶ See Comments of MSTV/NAB/ALTV filed in MM Docket No. 00-39 (filed April 6, 2001).

¹³⁶ *First DTV Periodic Review Second Report and Order*, 17 FCC Rcd at 15996, ¶ 40.

¹³⁷ *Id.*, ¶ 59.

¹³⁸ *Id.*

address the issue in a more comprehensive manner.¹³⁹ Commenters have defined distributed transmission as being similar to a cellular telephone system in that a service area is divided into a number of cells, each served by its own transmitter.¹⁴⁰ Distributed transmission differs from a cellular telephone system in that all adjacent cells use the same frequency (a "single-frequency network").¹⁴¹ DTV boosters retransmit the primary DTV station's programming on the same channel. The viability of DTV boosters will depend upon the adequate performance of existing DTV receiver circuitry known as an "adaptive equalizer." This circuitry enables DTV receivers to treat signals from multiple transmitters as echoes of one another and these echoes can, within certain limiting parameters, be cancelled and/or combined to produce a single signal. If not eliminated, the echoes would result in interference and degradation of the quality of the received signal.

100. An essential prerequisite for a workable system is that all of the signals being received simultaneously must originate from transmitters that are radiating signals in which the symbol codes are arranged in the same order for the same data input, *i.e.*, the signals must be coherent.¹⁴² One approach to harmonizing the transmitters within a system would be to feed them all from a single modulator, thus providing them with identical data input streams. The modulator output could be delivered to each transmitter via a transport system (*e.g.* microwave link) or over the air, where it could be converted to the necessary channel, amplified and transmitted. This approach has various inherent drawbacks, including the effects of propagation delay along the feed system and, for transmitters fed from over the air signals, signal feedback problems. Another approach to harmonizing transmitters could involve separate modulators at each transmitter which are synchronized from a common source, *i.e.*, synchronizing signals are added to the output from a common service multiplexer and delivered via a digital transport system to each transmitter, where they are decoded and used to produce identical bit streams from all transmitters.

101. Primary vs. secondary status. We have received comments suggesting that the Commission should grant primary status to the multiple transmitters in distributed transmission systems and license them under Part 73 of the rules, as opposed to treating them similarly to LPTV, translator, and booster stations.¹⁴³ We seek comment on the implications of granting primary status to DTV boosters in distributed transmission systems, and on whether we should license some categories of such stations with primary status. We are particularly interested in comments on the impact of primary DTV boosters on existing secondary LPTV and TV translator stations. Should some protection be afforded these secondary stations? What impact would primary DTV boosters have on the future availability of channels for secondary analog or digital LPTV or TV translator stations? How important are distributed transmission systems likely to be in facilitating the transition to DTV? Is primary status an essential part of distributed transmission systems?

102. Location and service area. Currently, all analog TV boosters must be located and must have a service area contained within the Grade B contour of the associated full service station. Should an

¹³⁹ *First DTV Periodic Review Report and Order*, 16 FCC Rcd at 5971, ¶¶ 62-63

¹⁴⁰ See comments filed in response to the *Notice of Proposed Rule Making* in MM Docket No. 00-39, including those of the Merrill Weiss Group ("Weiss").

¹⁴¹ *Id.*

¹⁴² See Weiss Docket No. 00-39 comments at 22

¹⁴³ Letter from Valerie Schulte, NAB, to Kirk Chessen, Associate Bureau Chief, Media Bureau (June 7, 2002). We intend to address the issue of DTV boosters licensed under Part 74 in a separate proceeding.